STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ML-22794	6. SURFACE: State
1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐	7. IF INDIAN, ALLOTTEE OR TRIBE NAME:
B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑	8. UNIT or CA AGREEMENT NAME: UNIT #891008900A
2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE L.P.	9. WELL NAME and NUMBER: NBU 1021-31A
3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078 PHONE NUMBER: (435) 781-7024	10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 744'FNL, 815'FEL 620754X 4418441Y 39.909346 -109.587283 AT PROPOSED PRODUCING ZONE:	11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 17.7 MILES SOUTH OF OURAY, UTAH	12. COUNTY: UINTAH / 13. STATE: UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:
744'	643.12	40.00
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	**19. PROPOSED DEPTH:**	**20. BOND DESCRIPTION:**
REFER TO TOPO C	9,270	RLB0005237
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.):	**22. APPROXIMATE DATE WORK WILL START:**	**23. ESTIMATED DURATION:**
5293'GL		

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT			SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT		
12 1/4"	9 5/8	32.3#	H-40	1,900	265 SX CLASS G	1.18 YIELD	15.6 PPG
7 7/8"	4 1/2	11.6#	I-80	9,270	1960 SX CLASS G	1.31 YIELD	14.3 PPG

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
- ☑ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
- ☑ COMPLETE DRILLING PLAN
- ☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE [signature] DATE 2/28/2007

(This space for State use only)

API NUMBER ASSIGNED: 43-047-39111

Approved by the Utah Division of Oil, Gas and Mining

APPROVAL:

Date: 06-12-07

By: [signature]

(See Instructions on Reverse Side)

RECEIVED
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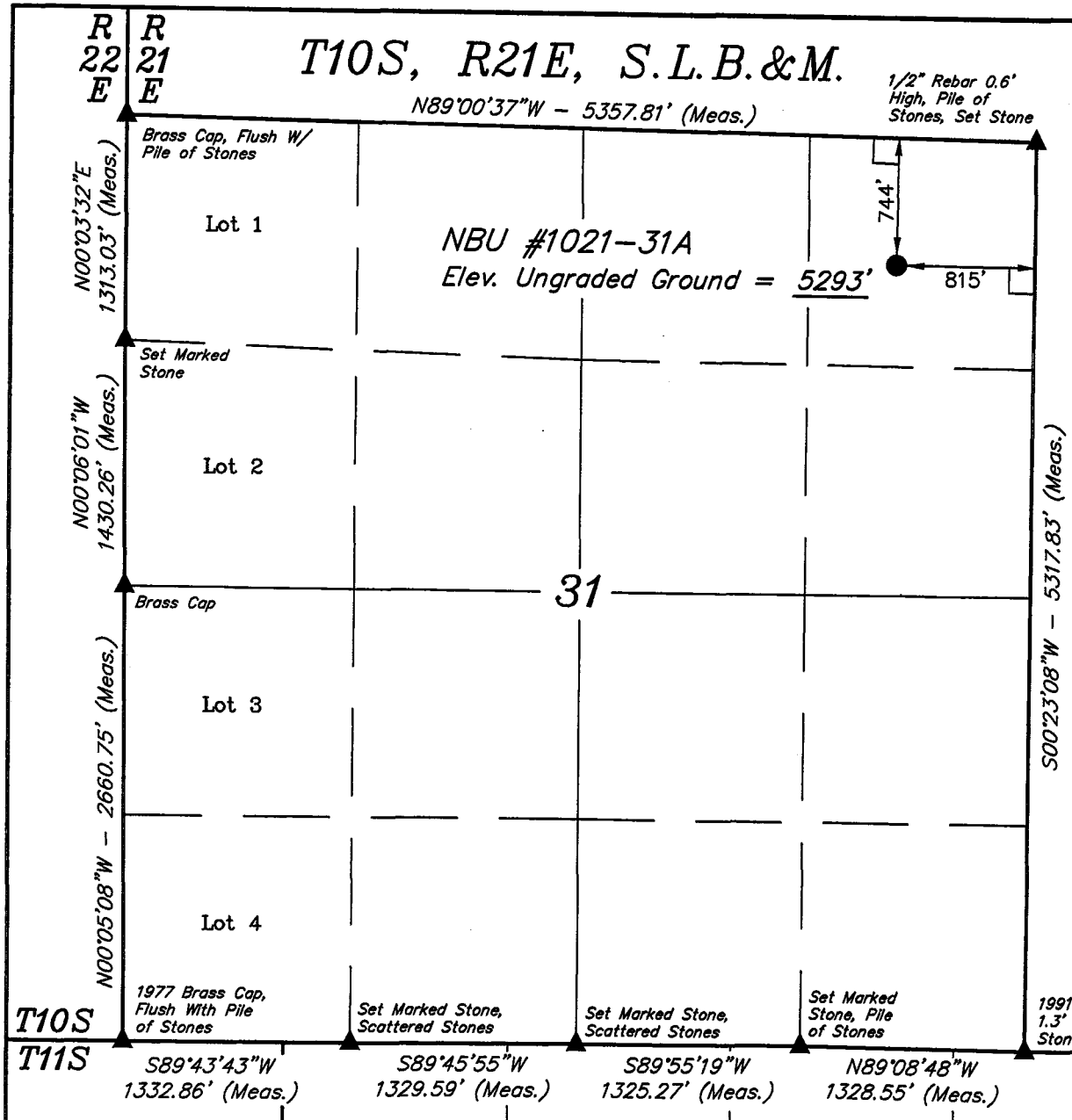
DIV. OF OIL, GAS & MINING

(11/2001)



Kerr-McGee Oil & Gas Onshore LP

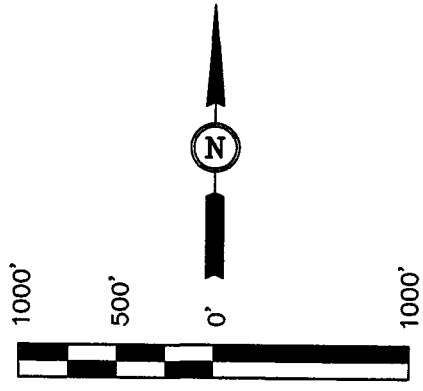
Well location, NBU #1021-31A, located as shown in the NE 1/4 NE 1/4 of Section 31, T10S, R21E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SCALE

CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

(NAD 83)
LATITUDE = 39°54'33.26" (39.909239)
LONGITUDE = 109°35'16.43" (109.587897)
(NAD 27)
LATITUDE = 39°54'33.38" (39.909272)
LONGITUDE = 109°35'13.95" (109.587208)

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE	DATE SURVEYED:	DATE DRAWN:
1" = 1000'	12-26-06	12-28-06
PARTY: N.H. G.S. S.L.	REFERENCES: G.L.O. PLAT	
WEATHER: COLD	FILE: Kerr-McGee Oil & Gas Onshore LP	

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
311	43-047-39111-00-00		GW	S	No

Operator	KERR-MCGEE OIL & GAS ONSHORE, LP	**Surface Owner-APD**	
Well Name	NBU 1021-31A	**Unit**	
Field	UNDESIGNATED	**Type of Work**	
Location	NENE 31 10S 21E S 744 FNL 815 FEL	GPS Coord (UTM) 620754E 4418441N	

Geologic Statement of Basis

Kerr McGee proposes to set 1,900' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,800'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 31. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought up above the base of the moderately saline ground water to isolate it from fresher waters uphole.

Brad Hill — **APD Evaluator** — 4/17/2007 — **Date / Time**

Surface Statement of Basis

The general area is within the Love area of Natural Buttes Unit in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

This location is approximately 18 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 320 feet of the proposed site. New construction will be required from this point.

The proposed location is in a flat with little change in terrain except for a few minor swales. The flat has a slight slope to the north. It is located between side tributaries of Cottonwood Wash that is about 1.2 miles to the east. No drainage concerns exist

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location. The selected location appears to be the best site for drilling and operating a well in the immediate area.

Floyd Bartlett — **Onsite Evaluator** — 4/5/2007 — **Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

NBU 1021-31A
NE/NE SEC. 31, T10S, R21E
UINTAH COUNTY, UTAH
ML-22794

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. **Estimated Tops of Important Geologic Markers:**

Formation	Depth
Uinta	0- Surface
Green River	1063'
Top of Birds Nest Water	1272'
Mahogany	1794'
Wasatch	4198'
Mesaverde	7100'
MVU2	8100'
MVL1	8595'
TD	9270'

2. **Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

Substance	Formation	Depth
	Green River	1063'
Water	Top of Birds Nest Water	1272'
	Mahogany	1794'
Gas	Wasatch	4198'
Gas	Mesaverde	7100'
Gas	MVU2	8100'
Gas	MVL1	8595'
Water	N/A	
Other Minerals	N/A	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 9270' TD, approximately equals 5747 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3708 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.

10. **Other Information:**

Please refer to the attached Drilling Program.

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	March 1, 2007	
WELL NAME	NBU 1021-31A		TD	9,270' MD/TVD	
FIELD	Natural Buttes	COUNTY Uintah	STATE Utah	ELEVATION	5,293' GL KB 5,308'
SURFACE LOCATION	NE/NE SEC. 31, T10S, R21E 744'FNL, 815'FEL			BHL	Straight Hole
	Latitude: 39.909239	Longitude: 109.587897			
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: UDOGM (SURF & MINERALS), BLM,Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'	14"		
			12-1/4"	9-5/8", 32.3#, H-40, STC	Air mist
Catch water sample, if possible, from 0 to 4,198'					
	Green River @	1,063'			
	Top of Birds Nest Water @	1272'			
	Mahogany @	1,794'			
	Preset f/ GL @	1,900' MD			
Note: 12.25" surface hole will usually be drilled ±400' below the bottom of lost circulation zone. Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone.					
			7-7/8"	4-1/2",11.6#, I-80 or equivalent LTC casing	Water/Fresh Water Mud 8.3-11.3 ppg
Mud logging program TBD					
Open hole logging program f/ TD - surf csg					
	Wasatch @	4,198'			
	Mverde @	7,100'			
	MVU2 @	8,100'			
	MVL1 @	8,595'			
	TD @	9,270'			Max anticipated Mud required 11.3 ppg

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								2270	1370	254000
SURFACE	9-5/8"	0	to	1900	32.30	H-40	STC	0.67*******	1.54	4.73
								7780	6350	201000
PRODUCTION	4-1/2"	0	to	9270	11.60	I-80	LTC	2.28	1.17	2.14

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.3 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3408 psi

********* Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
Option 1							
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	50		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		**NOTE: If well will circulate water to surface, option 2 will be utilized**					
Option 2	LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite +.25 pps Flocele + 3% salt BWOC	170	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,690'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	400	60%	11.00	3.38
	TAIL	5,580'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1560	60%	14.30	1.31

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT Systems for mud monitoring. If no PVT is available, visual monitoring will be utililzed.

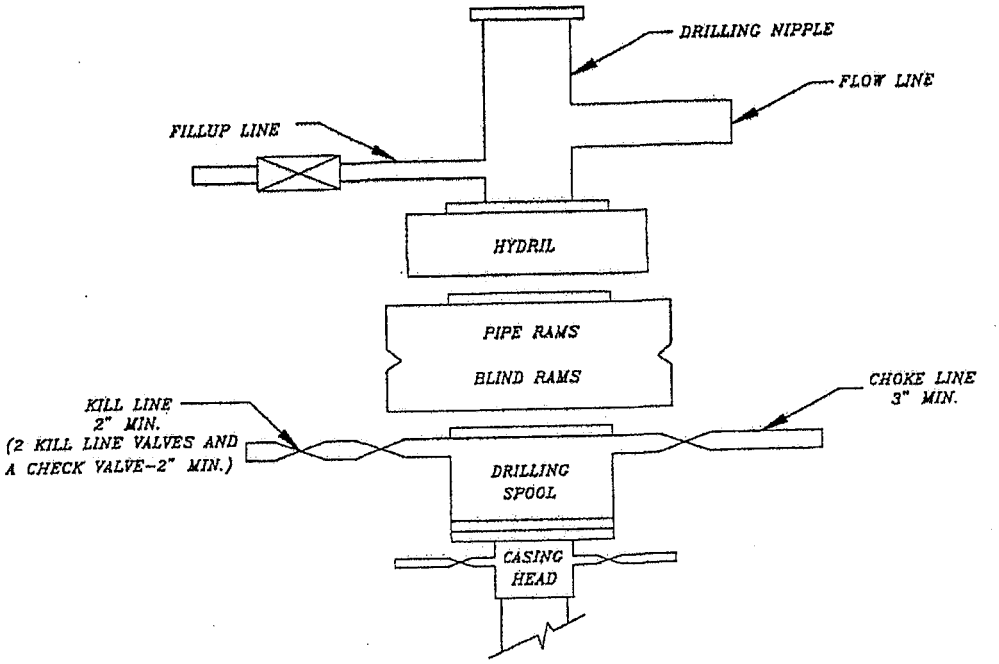
DRILLING ENGINEER: _____ **DATE:** _____

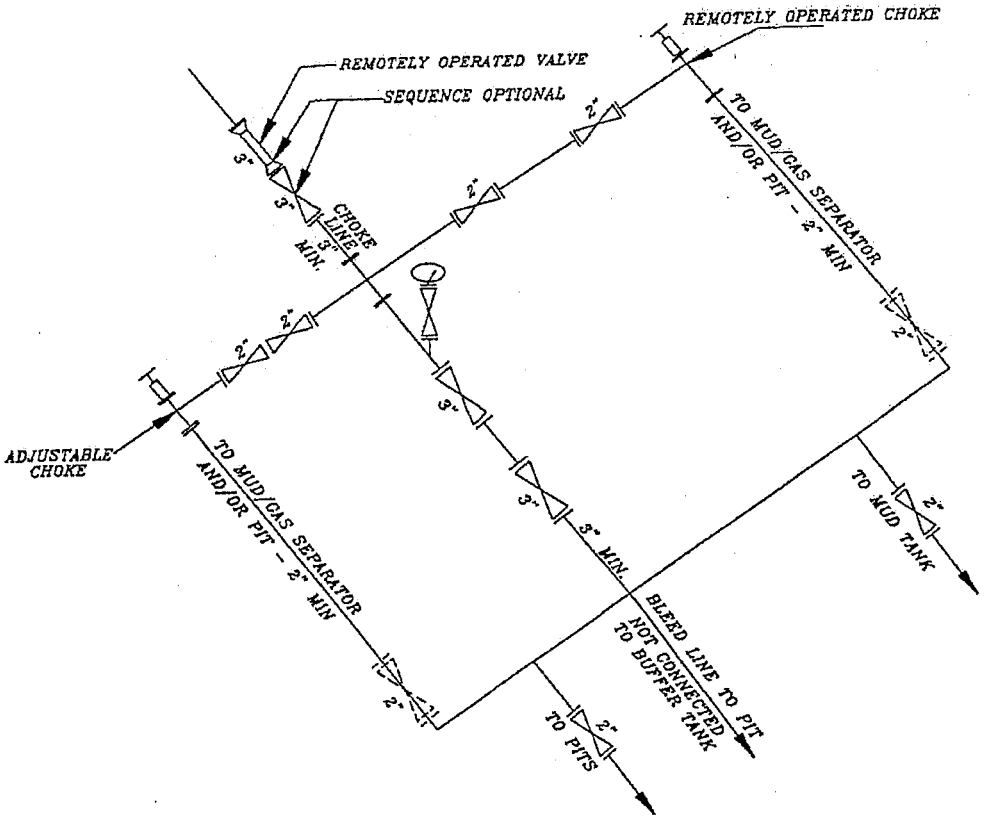
Brad Laney

DRILLING SUPERINTENDENT: _____ **DATE:** _____

Randy Bayne

5M BOP STACK and CHOKE MANIFOLD SYSTEM





NBU 1021-31A
NE/NE SEC. 31, T10S, R21E
Uintah County, UT
ML-22794

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. **Existing Roads:**

Refer to Topo Map A for directions to the location.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

Refer to Topo Maps A and B for location of access roads within a 2 mile radius.

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. **Planned Access Roads:**

Approximately 320' +/- of new access road is proposed. Refer to Topo Map B for the location of the proposed access road.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. **Location of Existing Wells Within a 1-Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain

fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Carlsbad Canyon, standard color number 2.5Y 6/2.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Approximately 263' +/- of 4" steel pipeline is proposed. Please refer to the attached Topo Map D for pipeline placement.

5. **Location and Type of Water Supply:**

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. **Source of Construction Materials:**

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

7. **Methods of Handling Waste Materials:**

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E.

8. **Ancillary Facilities:**

None are anticipated.

9. **Well Site Layout:** (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

All pits will be fenced according to the following minimum standards:

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance

between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

The reserve pit fencing will be on three sides during drilling operations, and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, materials, trash, and debris not required for production.

Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

13. Lessee's or Operators's Representative & Certification:

Sheila Upchego
Senior Land Admin Specialist
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East.
Vernal, UT 84078
(435) 781-7024

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435)781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond #RLB0005237.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Sheila Upchego

2/28/2007
Date

Kerr-McGee Oil & Gas Onshore LP

NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; TURN LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 15.6 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 320' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 48.7 MILES.

Kerr-McGee Oil & Gas Onshore LP

NBU #1021-31A

LOCATED IN UINTAH COUNTY, UTAH
SECTION 31, T10S, R21E, S.L.B.&M.

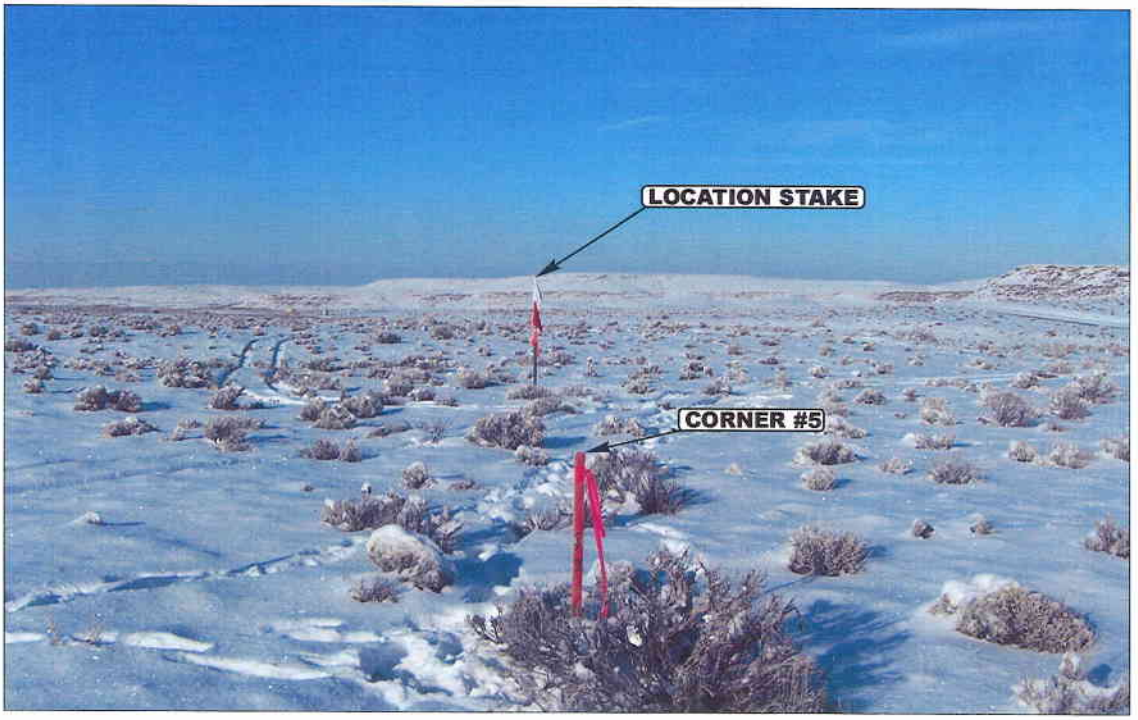
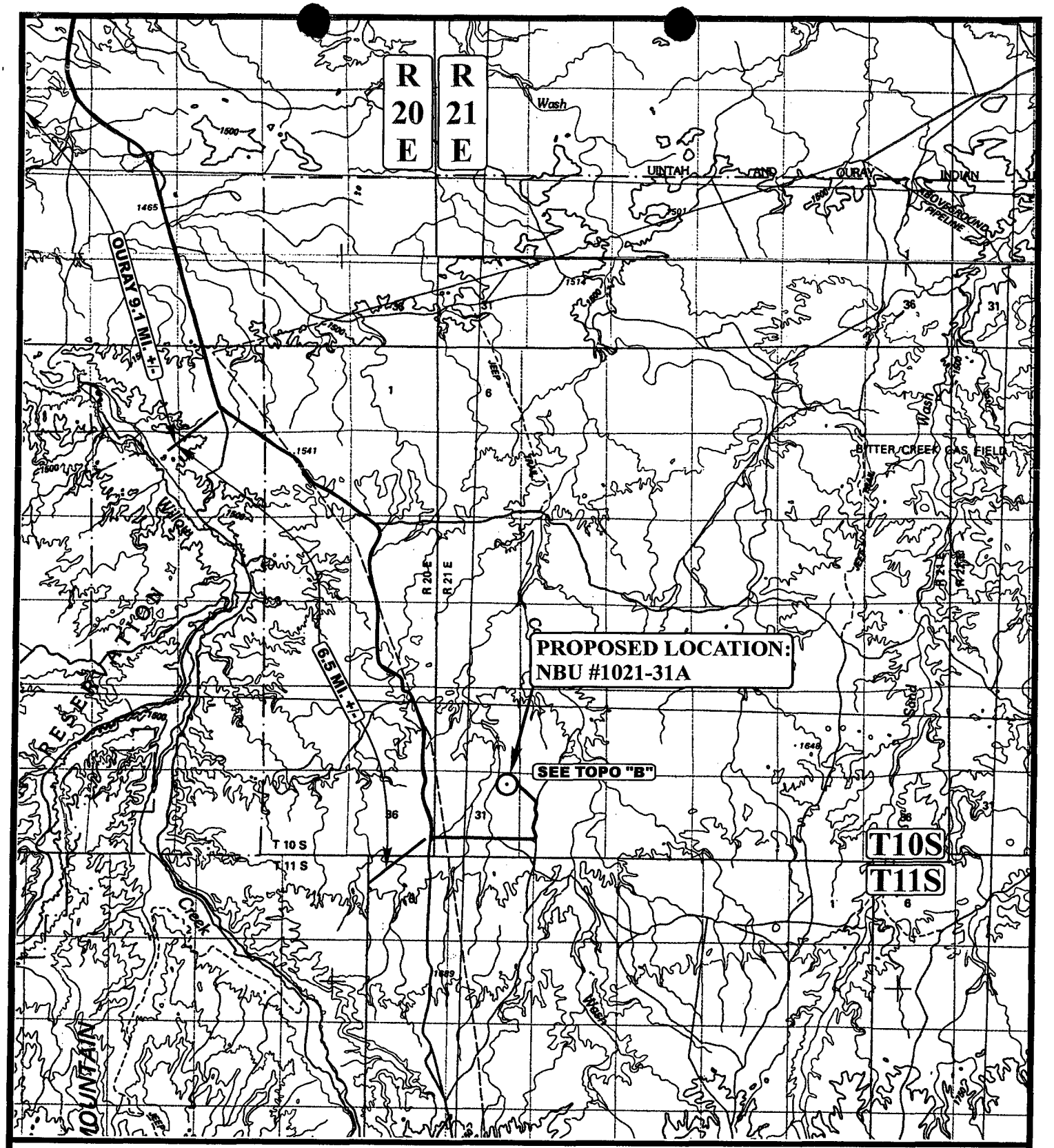


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: NORTHERLY**

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS **CAMERA ANGLE: SOUTHWESTERLY**

- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

LOCATION PHOTOS	12 MONTH	17 DAY	06 YEAR	PHOTO
TAKEN BY: N.H.	DRAWN BY: A.A.	REVISED: 00-00-00		



LEGEND:

⊙ PROPOSED LOCATION

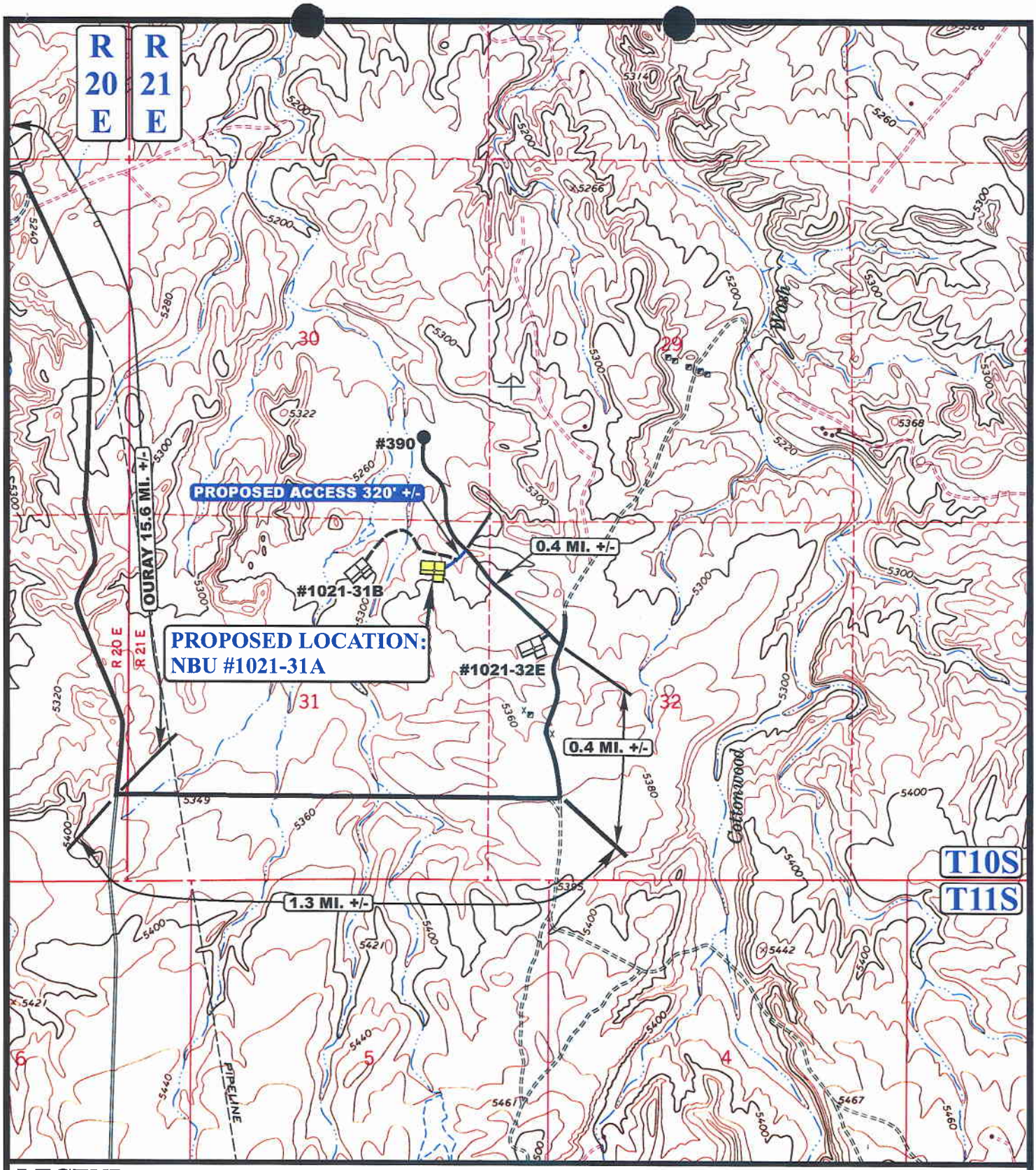
N

Kerr-McGee Oil & Gas Onshore LP

NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.
744' FNL 815' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	12 MONTH	17 DAY	06 YEAR
SCALE: 1:100,000	DRAWN BY: A.A.	REVISED: 00-00-00	A TOPO



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

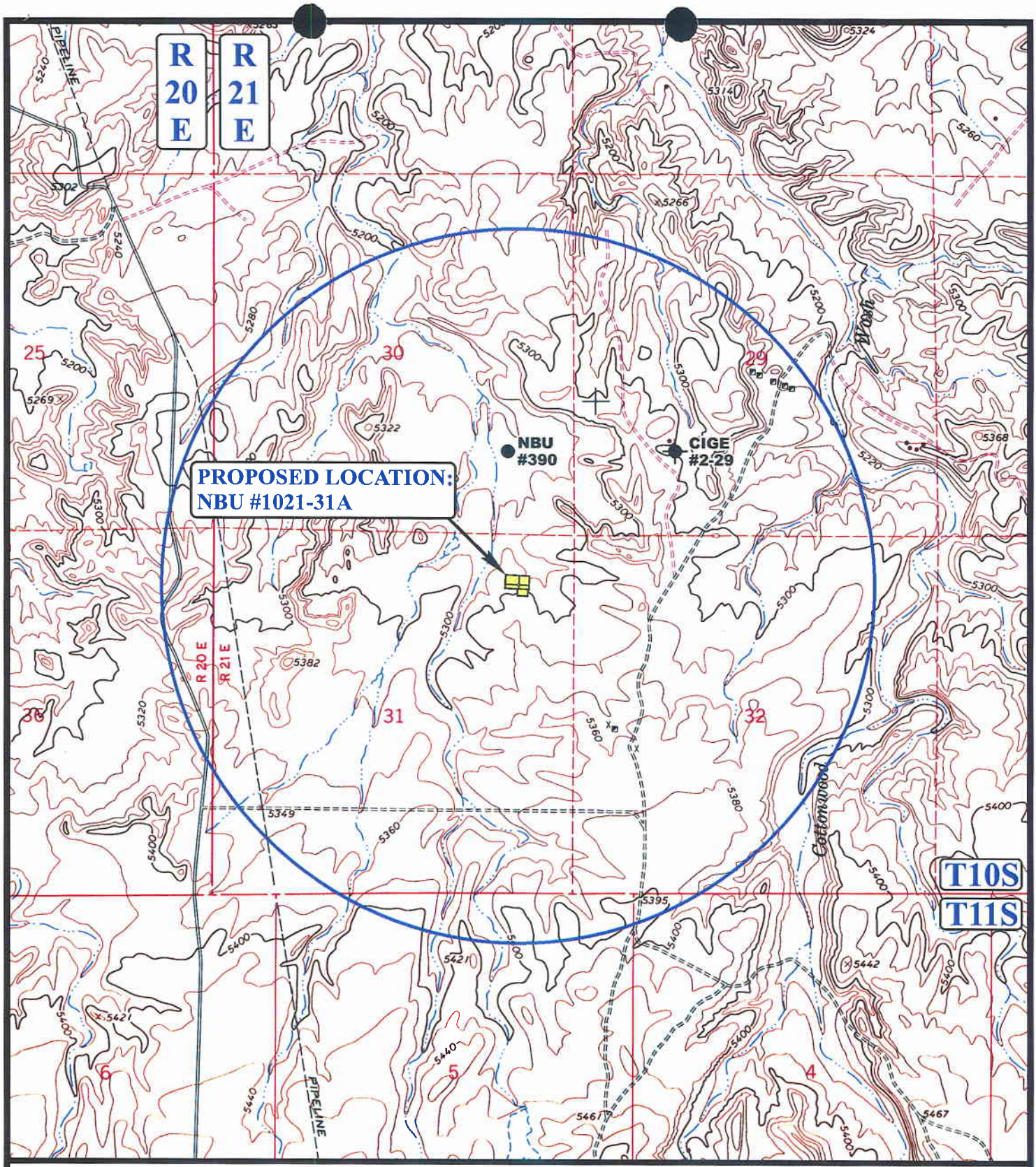
N

Kerr-McGee Oil & Gas Onshore LP

NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.
744' FNL 815' FEL

UELS
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	12 MONTH	17 DAY	06 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: A.A.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- WATER WELLS
- PRODUCING WELLS
- ABANDONED WELLS
- SHUT IN WELLS
- TEMPORARILY ABANDONED

N

Kerr-McGee Oil & Gas Onshore LP

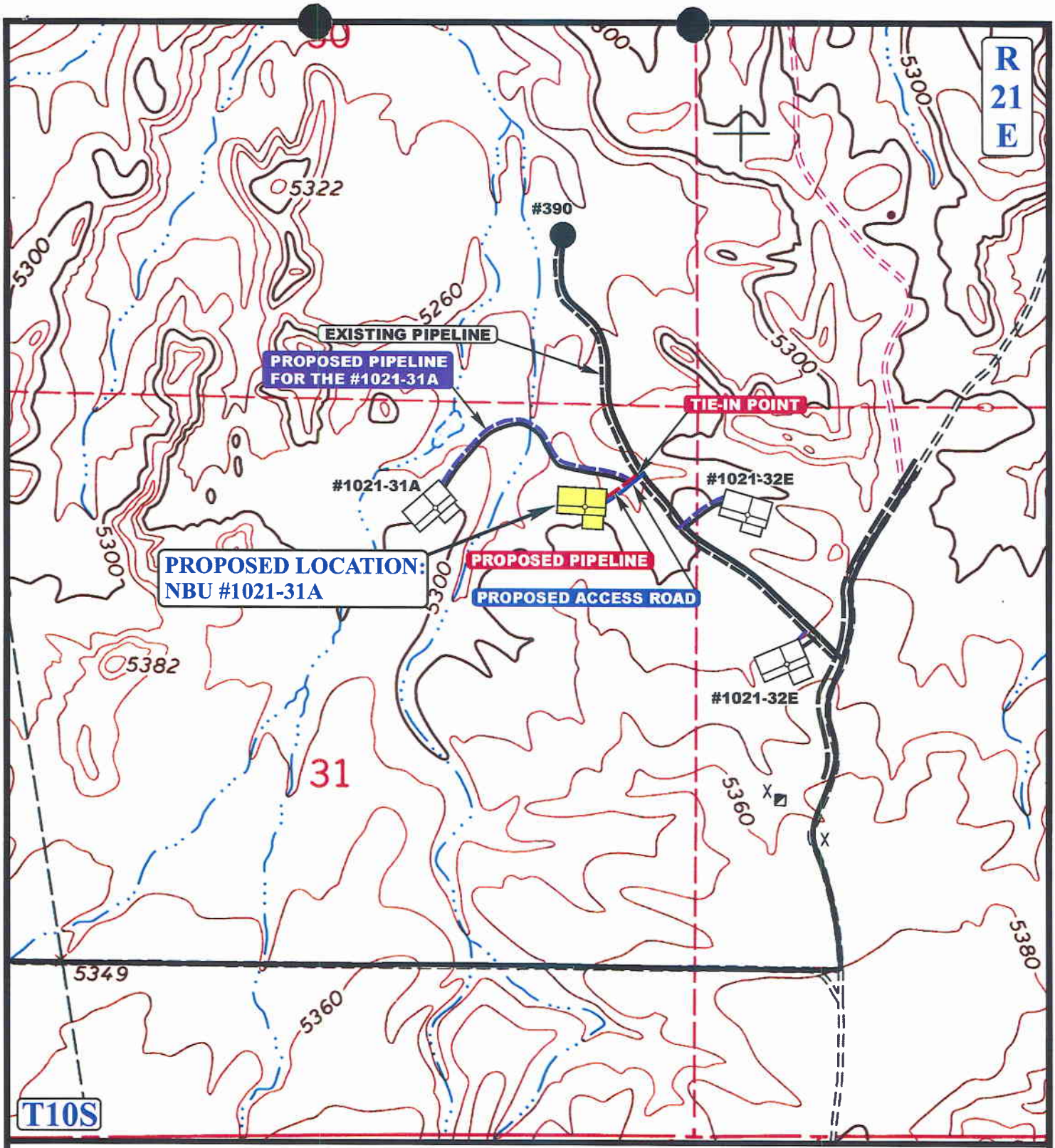
NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.
744' FNL 815' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 12 MONTH | 17 DAY | 06 YEAR

SCALE: 1" = 2000' | DRAWN BY: A.A. | REVISED: 00-00-00

C TOPO



APPROXIMATE TOTAL PIPELINE DISTANCE = 263' +/-

LEGEND:

PROPOSED ACCESS ROAD
EXISTING PIPELINE
PROPOSED PIPELINE

N

Kerr-McGee Oil & Gas Onshore LP

NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.
744' FNL 815' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP | 12 MONTH | 17 DAY | 06 YEAR | D TOPO

SCALE: 1" = 1000' | DRAWN BY: A.A. | REVISED: 00-00-00

Kerr-McGee Oil and Gas Onshore LP

NBU #1021-31A

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH
SECTION 31, T10S, R21E, S.L.B.&M.

PHOTO: VIEW FROM TIE-IN POINT

CAMERA ANGLE: WESTERLY

- Since 1964 -

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com

PIPELINE PHOTOS	12 MONTH	27 DAY	06 YEAR	PHOTO
TAKEN BY: N.H.	DRAWN BY: A.A.	REVISED: 00-00-00		

Kerr-McGee Oil & Gas Onshore LP

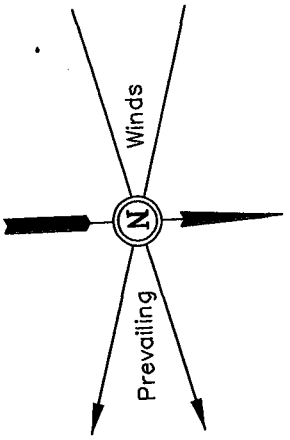
FIGURE #1

LOCATION LAYOUT FOR

NBU #1021-31A

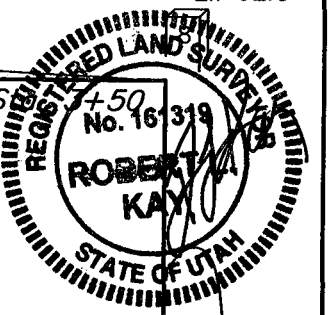
SECTION 31, T10S, R21E, S.L.B.&M.

744' FNL 815' FEL



SCALE: 1" = 50'
DATE: 12-28-06
Drawn By: S.L.

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.



C-3.4'
El. 96.3'

C-3.1'
El. 96.0'

F-0.1'
El. 92.8'

Sta. 3+50

58'

200'

Topsoil Stockpile

Approx. Top of Cut Slope

Pit Topsoil

PIPE TUBS

CATWALK

PIPE RACKS

Topsoil Stockpile

FLARE PIT

C-1.8'
El. 94.7'

Blooie Line

C-0.2'
El. 93.1'

RIG

135'

Sta. 1+50

100'

10'

58'

El. 97.8'
C-14.9'
(btm. pit)

MUD TANKS

DOG HOUSE

TOILET

F-1.2'
El. 91.7'

C-1.6'
El. 94.5'

LIGHT PLANT

BOILER

TRAILER

RESERVE PITS
(10' Deep)

MUD TANKS

PUMP HOUSE

COMPRESSOR

WATER TANK

Approx. Toe of Fill Slope

Reserve Pit Backfill & Spoils Stockpile

15' WIDE BENCH

150'

1 1/2:1 Slope

Total Pit Capacity
W/2' of Freeboard
= 15,490 Bbls. ±
Total Pit Volume
= 4,280 Cu. Yds.

BOOSTER

150'

Sta. 0+50

TRASH

F-0.5'
El. 92.4'

PROPANE STORAGE

Round Corners as Needed

El. 95.2'
C-12.3'
(btm. pit)

10'

58'

Sta. 0+00

F-1.0'
El. 91.9'

F-2.0'
El. 90.9'

F-8.3'
El. 84.6'

Proposed Access Road

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5293.1'

FINISHED GRADE ELEV. AT LOC. STAKE = 5292.9'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

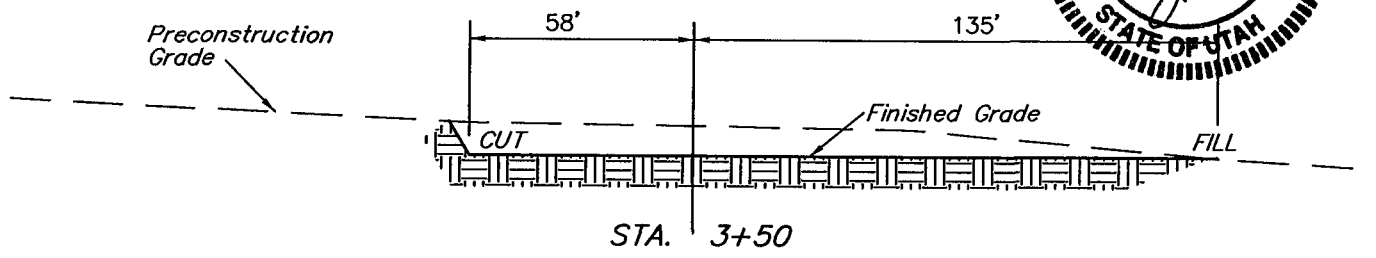
TYPICAL CROSS SECTIONS FOR

NBU #1021-31A
SECTION 31, T10S, R21E, S.L.B.&M.
744' FNL 815' FEL

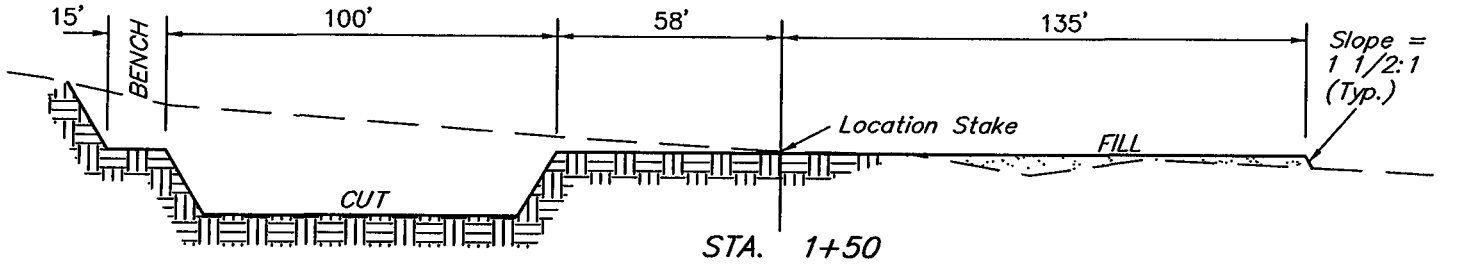
1" = 20'
X-Section Scale
1" = 50'

DATE: 12-28-06
Drawn By: S.L.

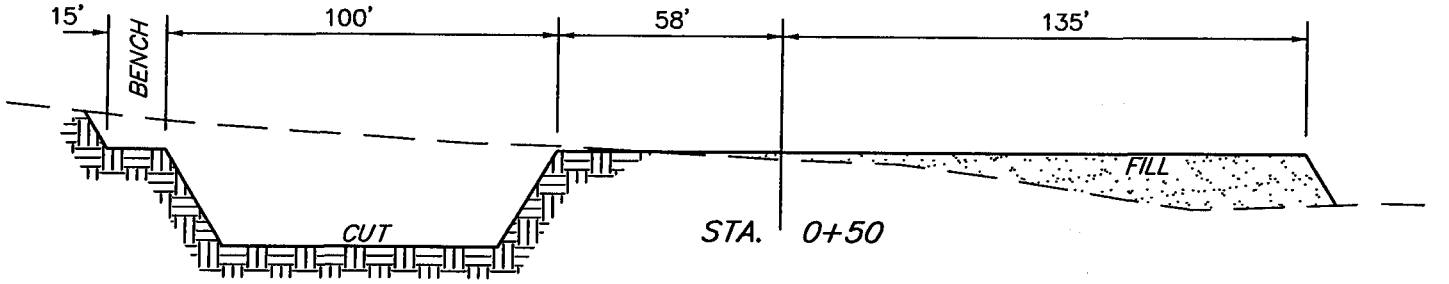
REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH



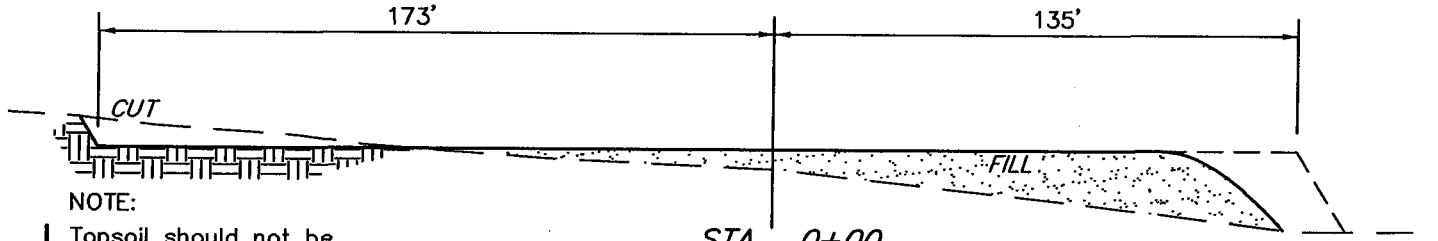
STA. 3+50



STA. 1+50



STA. 0+50



STA. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 1,780 Cu. Yds.
Remaining Location = 7,340 Cu. Yds.

TOTAL CUT = 9,120 CU.YDS.
FILL = 3,110 CU.YDS.

EXCESS MATERIAL = 6,010 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 3,920 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 2,090 Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/16/2007

API NO. ASSIGNED: 43-047-39111

WELL NAME: NBU 1021-31A

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

PHONE NUMBER: 435-781-7024

CONTACT: SHEILA UPCHEGO

PROPOSED LOCATION:

NENE 31 100S 210E

SURFACE: 0744 FNL 0815 FEL

BOTTOM: 0744 FNL 0815 FEL

COUNTY: UINTAH

LATITUDE: 39.90935 LONGITUDE: -109.5873

UTM SURF EASTINGS: 620754 NORTHINGS: 4418441

FIELD NAME: NATURAL BUTTES (630)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DKD	4/30/07
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ML-22794

SURFACE OWNER: 3 - State

PROPOSED FORMATION: WSMVD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 22013542)

N Potash (Y/N)

Y Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 43-8496)

N RDCC Review (Y/N)
(Date:)

N/A Fee Surf Agreement (Y/N)

N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: NATURAL BUTTES

___ R649-3-2. General
Siting: 460 From Qtr/Qtr & 920' Between Wells

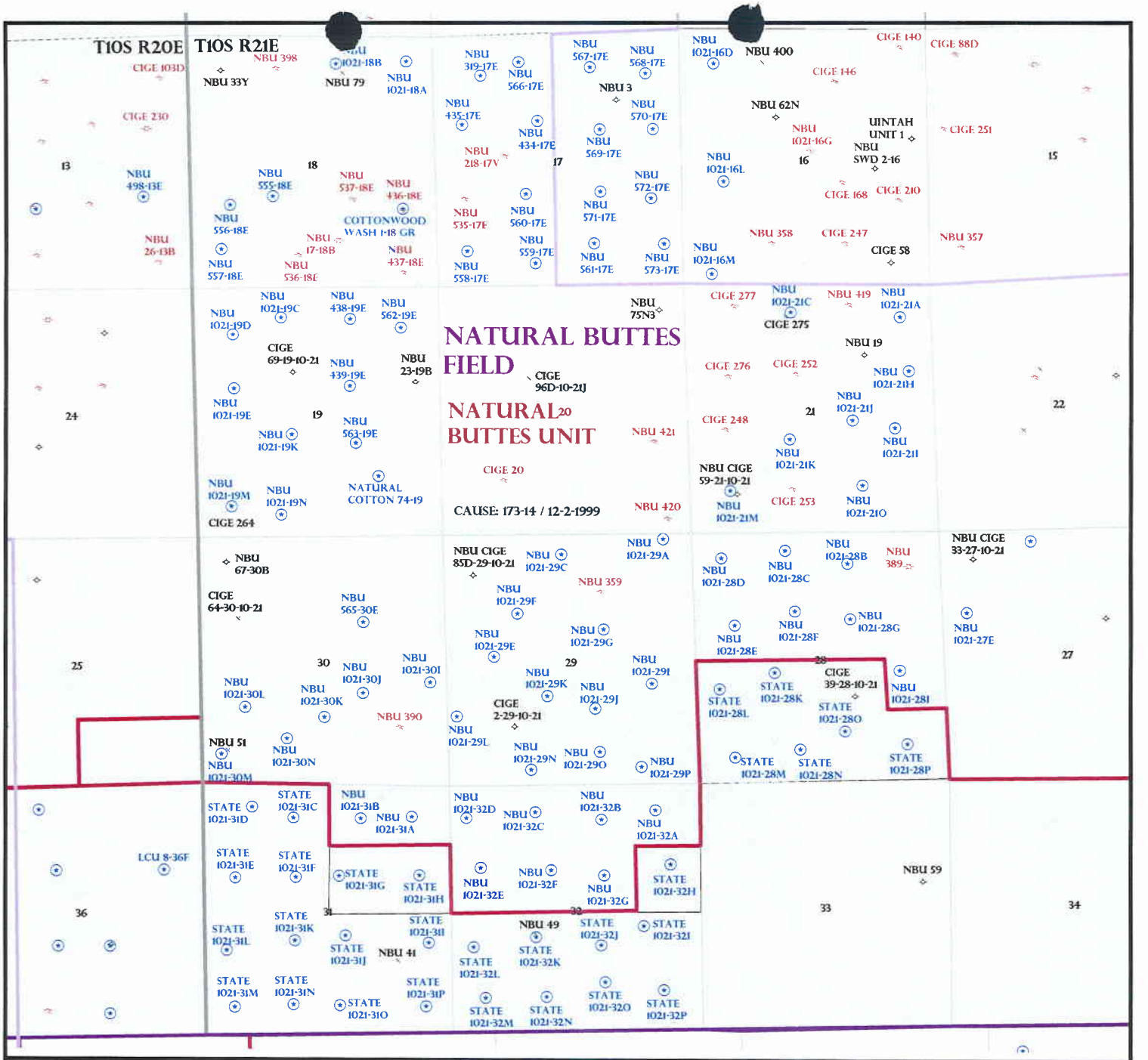
___ R649-3-3. Exception

✓ Drilling Unit
Board Cause No: 173-14
Eff Date: 12-2-99
Siting: 460' fr unit & uncomm. tracts

___ R649-3-11. Directional Drill

COMMENTS: Needs Presite (04-05-07)

STIPULATIONS: 1- STATEMENT OF BASIS
2- OIL SHALE
3- Surface Csg Cmt Stip



OPERATOR: KERR MCGEE O&G (N9550)

SEC: 16,28,29,31,32 T.10S R. 21E

FIELD: NATURAL BUTTES (630)

COUNTY: UINTAH

CAUSE: 173-14 / 12-2-1999

Field Status
- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

Unit Status
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Wells Status
- GAS INJECTION
- GAS STORAGE
- LOCATION ABANDONED
- NEW LOCATION
- PLUGGED & ABANDONED
- PRODUCING GAS
- PRODUCING OIL
- SHUT-IN GAS
- SHUT-IN OIL
- TEMP. ABANDONED
- TEST WELL
- WATER INJECTION
- WATER SUPPLY
- WATER DISPOSAL
- DRILLING

Utah Oil Gas and Mining

N W E S

PREPARED BY: DIANA MASON
DATE: 23-MARCH-2007

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, LP
Well Name NBU 1021-31A
API Number 43-047-39111-0 **APD No** 311 **Field/Unit** UNDESIGNATED
Location: 1/4,1/4 NENE **Sec** 31 **Tw** 10S **Rng** 21E 744 FNL 815 FEL
GPS Coord (UTM) 620760 4418433 **Surface Owner**

Participants

Floyd Bartlett (DOGM), Jim Davis (SITLA), Carroll Estes and Tony Keznic (Kerr McGee) and David Kay (Uintah Engineering and Land Surveying)

Regional/Local Setting & Topography

The general area is within the Love area of Natural Buttes Unit in the upper Cottonwood Wash Drainage. The area is characterized by rolling hills and benches, which are frequently intersected by somewhat gentle draws, which flow into Cottonwood Wash. The draws are occasionally rimed with steep side hills, which have exposed sand stone bedrock cliffs along the rims. Cottonwood Wash is an ephemeral drainage, which drains northerly approximately 11 miles to the White River. No seeps, springs or streams exist in the area. An occasional pond collecting runoff for livestock and antelope occurs.

This location is approximately 18 miles southeast of Ouray, Utah and is accessed by the Seep Ridge Road then by existing or planned oil field development roads to within 320 feet of the proposed site. New construction will be required from this point.

The proposed location is in a flat with little change in terrain. The flat has a slight slope to the north. It is located between side tributaries of Cottonwood Wash that is about 1.2 miles to the east. No drainage concerns exist

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use
Grazing
Recreational
Wildlfe Habitat

New Road Miles	Well Pad		Src Const Material	Surface Formation
0.08	**Width** 308	**Length** 350	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Vegetation is a sparse desert shrub type. Spiny hopsage, horsebrush, curly mesquite, bud sage, halogeton, prickly pear, Gardner saltbrush, shadscale and spring annuals are present.

Antelope, cattle, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Moderately deep sandy loam. Few surface rock.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potental Observed?** N **Cultural Survey Run?** N **Cultural Resources?**

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	300 to 1320	10
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
	Final Score	25 1 **Sensitivity Level**

Characteristics / Requirements

The proposed reserve pit is 100' x 150' x 10' deep located in a cut on the southeast corner of the location. A 20 mil liner with a felt sub-liner is planned by Kerr McGee.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 16 **Pit Underlayment Required?** Y

Other Observations / Comments

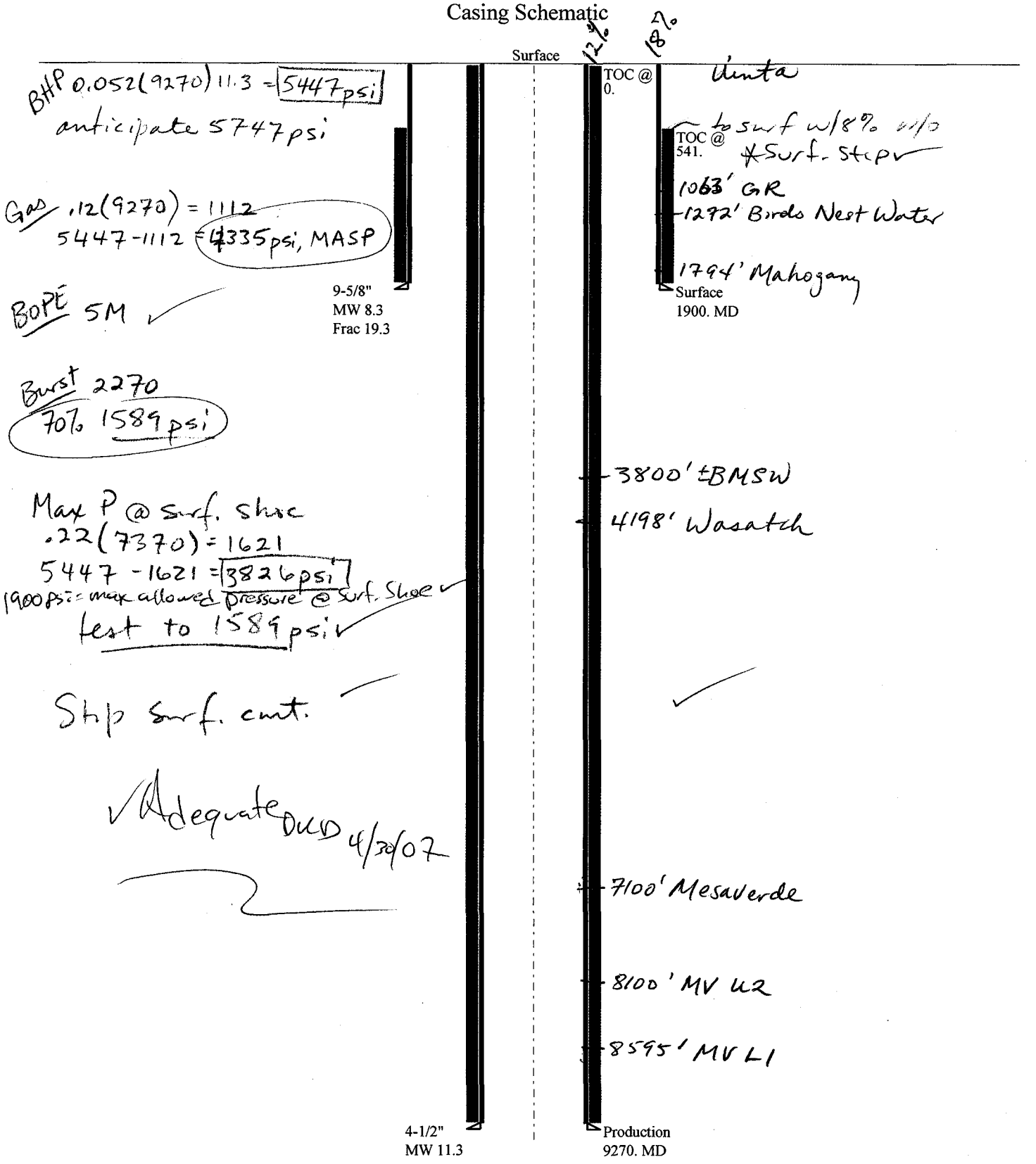
Ben Williams representing the UDWR was not at the pre-site but stated the previous day that all the remaining locations in the area were classified as yearlong critical habitat for antelope. He stated that the lack of water not forage is the limiting factor affecting the herd in the area. He recommended no restrictions for antelope. No other wildlife is expected to be significantly affected. He gave Jim Davis of SITLA and Carroll Estes of Kerr McGee a copy of his wildlife evaluation and a UDWR recommended seed mix to be used when re-vegetating the locations.

ATV's were used to access the site.

Floyd Bartlett	4/5/2007
Evaluator	**Date / Time**

2007-04 Kerr McGee NBU 1021-31A

Casing Schematic



Well name:	**2007-04 Kerr McGee NBU 1021-31A**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Surface
Project ID:	43-047-39111
Location:	Uintah County, Utah

Design parameters:

Collapse
Mud weight: 8.300 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,672 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,900 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 1,668 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,400 ft

Cement top: 541 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 9,270 ft
Next mud weight: 11.300 ppg
Next setting BHP: 5,442 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,900 ft
Injection pressure: 1,900 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	1900	9.625	32.30	H-40	ST&C	1900	1900	8.876	839.6

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	819	1370	1.672	1900	2270	1.19	54	254	4.71 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Minerals
Phone: (801) 538-5357
FAX: (801) 359-3940
Date: April 23,2007
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 1900 ft, a mud weight of 8.3 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**2007-04 Kerr McGee NBU 1021-31A**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Production
Project ID:	43-047-39111
Location:	Uintah County, Utah

Design parameters:

Collapse
Mud weight: 11.300 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,402 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,442 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 7,704 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 205 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft

Cement top: Surface

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	9270	4.5	11.60	I-80	LT&C	9270	9270	3.875	809

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5442	6360	1.169	5442	7780	1.43	89	212	2.37 J

Prepared by: Helen Sadik-Macdonald, Div of Oil,Gas & Minerals
Phone: (801) 538-5357
FAX: (801) 359-3940
Date: April 23,2007
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 9270 ft, a mud weight of 11.3 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

March 27, 2007

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2007 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2007 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION

(Proposed PZ Wasatch/MesaVerde)

43-047-39107 NBU 1021-13N Sec 13 T10S R21E 0948 FSL 1602 FWL
43-047-39108 NBU 1021-13H Sec 13 T10S R21E 2351 FNL 0515 FEL
43-047-39109 NBU 1021-16D Sec 16 T10S R21E 0666 FNL 0666 FWL
43-047-39106 NBU 1021-28I Sec 28 T10S R21E 2269 FSL 0930 FEL
43-047-39100 NBU 1021-28F Sec 28 T10S R21E 1767 FNL 2157 FWL
43-047-39101 NBU 1021-28E Sec 28 T10S R21E 2046 FNL 0856 FWL
43-047-39102 NBU 1021-28D Sec 28 T10S R21E 0604 FNL 0614 FWL
43-047-39103 NBU 1021-28C Sec 28 T10S R21E 0476 FNL 1997 FWL
43-047-39104 NBU 1021-28B Sec 28 T10S R21E 0767 FNL 1997 FEL
43-047-39110 NBU 1021-29P Sec 29 T10S R21E 0286 FSL 1236 FEL
43-047-39111 NBU 1021-31A Sec 31 T10S R21E 0744 FNL 0815 FEL
43-047-39116 NBU 1021-31B Sec 31 T10S R21E 0777 FNL 1911 FEL
43-047-39136 NBU 1021-32G Sec 32 T10S R21E 2038 FNL 2065 FEL
43-047-39137 NBU 1021-32D Sec 32 T10S R21E 0777 FNL 0355 FWL
43-047-39138 NBU 1021-32E Sec 32 T10S R21E 1858 FNL 0651 FWL
43-047-39139 NBU 1022-19P Sec 19 T10S R22E 0766 FSL 0298 FEL
43-047-39141 NBU 1022-24J Sec 24 T10S R22E 1928 FSL 1972 FEL
43-047-39140 NBU 1022-24P Sec 24 T10S R22E 1110 FSL 1054 FEL
43-047-39142 NBU 1022-25G Sec 25 T10S R22E 1761 FNL 1462 FEL
43-047-39033 NBU 1022-25H Sec 25 T10S R22E 2604 FNL 0825 FEL
43-047-39156 NBU 1022-24O Sec 24 T10S R22E 0645 FSL 2007 FEL
43-047-39157 NBU 1022-7I Sec 07 T10S R22E 2000 FSL 0948 FEL

Our records indicate the NBU 1021-28I and the NBU 1022-25H are closer than 460 feet from the Natural Buttes Unit boundary (approximately 390 and 36 feet respectively).

We have no objections to permitting the wells so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-2).

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:3-27-07

From: Ed Bonner
To: Mason, Diana
Date: 6/7/2007 4:43 PM
Subject: Well Clearance

CC: Davis, Jim; Garrison, LaVonne; Hill, Brad; Hunt, Gil

The following wells have been given cultural resources clearance by the Trust Lands Cultural Resources Group:

Enduring Resources, LLC
Coyote Basin 8-25-11-16 (API 43 047 39189)

EOG Resources, Inc
NBU 635-12E (API 43 047 39190)
NBU 636-12E (API 43 047 39191)
NBU 632-12E (API 43 047 39192)
NBU 633-12E (API 43 047 39193)
NBU 634-12E (API 43 047 39194)

Kerr McGee Oil & Gas Onshore LP
NBU 1022-25B (API 43 047 39032)
NBU 1022-25G (API 43 047 39142)
NBU 1021-31A (API 43 047 39111)
State 1021-31M (API 43 047 39112)
State 1021-31E (API 43 047 39113)
State 1021-31D (API 43 047 39114)
State 1021-31C (API 43 047 39115)
NBU 1021-31B (API 43 047 39116)
State 1021-31P (API 43 047 39117)
State 1021-31L (API 43 047 39118)
State 1021-31N (API 43 047 39119)
State 1021-31O (API 43 047 39120)
State 1021-31I (API 43 047 39121)
State 1021-31J (API 43 047 39122)
State 1021-31K (API 43 047 39123)
State 1021-31F (API 43 047 39124)
State 1021-31G (API 43 047 39125)
State 1021-31H (API 43 047 39126)

If you have any questions regarding this matter please give me a call.

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

June 12, 2007

Kerr-McGee Oil & Gas Onshore, LP
1368 South 1200 East
Vernal, UT 84078

Re: State 1021-31A Well, 744' FNL, 815' FEL, NE NE, Sec. 31, T. 10 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39111.

Sincerely,

Gil Hunt
Associate Director

er
Enclosures

cc: Uintah County Assessor
Bureau of Land Management Vernal Office
SITLA

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

UTAH DNR OIL, GAS & MINING

Operator: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number State 1021-31A

API Number: 43-047-39111

Lease: ML 22794

Location: NE NE **Sec.** 31 **T.** 10 South **R.** 21 East

Conditions of Approval

1. **General**

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

   The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

   - 24 hours prior to cementing or testing casing – contact Dan Jarvis
   - 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
   - 24 hours prior to spudding the well – contact Carol Daniels
   - Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
   - Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

   The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

   - Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
   - Any changes to the approved drilling plan – contact Dustin Doucet

   The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

   - Dan Jarvis at: (801) 538-5338 office (801) 942-0873 home
   - Carol Daniels at: (801) 538-5284 office
   - Dustin Doucet at: (801) 538-5281 office (801) 733-0983 home

3. **Reporting Requirements**

   All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

6. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

7. Surface casing shall be cemented to the surface.

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

June 12, 2007
*Amended July 13, 2007

Kerr-McGee Oil & Gas Onshore, LP
1368 South 1200 East
Vernal, UT 84078

Re: *Natural Buttes Unit 1021-31A Well, 744' FNL, 815' FEL, NE NE, Sec. 31, T. 10 South, R. 21 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann§40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39111.

Sincerely,

Gil Hunt
Associate Director

er
Enclosures

cc: Uintah County Assessor
Bureau of Land Management Vernal Office
SITLA

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
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UTAH DNR OIL, GAS & MINING

Operator: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number Natural Buttes Unit 1021-31A

API Number: 43-047-39111

Lease: ML 22794

Location: NE NE **Sec.** 31 **T.** 10 South **R.** 21 East

Conditions of Approval

1. **General**

   Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

   The operator is required to notify the Division of Oil, Gas and Mining of the following action during drilling of this well:

   - 24 hours prior to cementing or testing casing – contact Dan Jarvis
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   - 24 hours prior to spudding the well – contact Carol Daniels
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   - Any changes to the approved drilling plan – contact Dustin Doucet

   The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

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7. Surface casing shall be cemented to the surface.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **KERR-McGEE OIL & GAS ONSHORE, LP**

Well Name: **NBU 1021-31A**

Api No: **43-047-39111** Lease Type: **STATE**

Section **31** Township **10S** Range **21E** County **UINTAH**

Drilling Contractor **PETE MARTIN DRLG** RIG # **RATHOLE**

SPUDDED:

Date **10/10/07**

Time **8:30 AM**

How **DRY**

Drilling will Commence:

Reported by **LOU WELDON**

Telephone # **(435) 828-7035**

Date **10/12/07** **Signed** **CHD**

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address: 1368 SOUTH 1200 EAST

city VERNAL

state UT zip 84078

Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304739111	NBU 1021-31A		NENE	31	10S	21E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	10/10/2007			10/17/07	

Comments: MIRU PETE MARTIN BUCKET RIG.
SPUD WELL LOCATION ON 10/10/2007 AT 0830 HRS.
WSMVD

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	

Comments:

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

SHEILA UPCHEGO
Name (Please Print)

Signature

SENIOR LAND SPECIALIST
Title

10/11/2007
Date

RECEIVED
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DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR McGEE OIL AND GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 744'FNL-815'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion: _____	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: SET SURF CSG
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU BILL MARTIN AIR RIG ON 10/12/2007. DRILLED 12 1/4" SURFACE HOLE TO 1955. RAN 9 5/8 OF 45 JTS OF 36# J-55 SURFACE CSG. LEAD CMT W/160 SX HIFILL CLASS G @ 11.0 PPG 3.82 YLD. TAILED CMT W/200 SX PREM CLASS G @ 15.8 PPG 1.15 YLD. RAN 200' OF 1" PIPE. CMT W/125 PREM CLASS G @ 15.8 PPG 1.15 YLD. GOOD CMT TO SURFACE AND STAYED AT SURFACE. WORT.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE _____ DATE 10/18/2007

(This space for State use only)

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DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR-McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 744'FNL-815'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
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Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: WELL SPUD
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

MIRU-PETE MARTIN BUCKET RIG. DRILL 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# CONDUCTOR PIPE. CMT W/28 SK READY MIX. SPUD WELL @ 0830 HRS ON 10/10/2007.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 10/11/2007

(This space for State use only)

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OCT 24 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER
8. WELL NAME and NUMBER: NBU 1021-31A
2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP
9. API NUMBER: 4304739111
3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078
PHONE NUMBER: (435) 781-7024
10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL
FOOTAGES AT SURFACE: 744'FNL, 815'FEL
COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E
STATE: UTAH

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Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: FINAL DRILLING OPERATIONS
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

FINISHED DRILLING FROM 1955' TO 9100' ON 11/12/2007. RAN 4 1/2" 11.6# I-80 PRODUCTION CSG. LEAD CMT W/340 SX PREM LITE II @11.2 PPG 3.13 YIELD. TAILED CMT W/1275 SX 50/50 POZ @14.3 PPG 1.31 YIELD. DROP PLUG & DISPLACE W/140 BBLS CLAY TREAT WATER BUMPED PLUG @3200 PSI (500 OVER CIRC PSI) FLOATS HELD W/1.5 BBLS BACK TO TRUCK FULL RETURNS DURING CMT JOB W/25 BBLS CMT TO PIT. LAND CSG. SET MANDREL TO 5000 PSI N/D STACK CLEAN MUD TANKS.

RELEASED ENSIGN RIG 83 ON 11/13/2007 AT 1230 HRS.

NAME (PLEASE PRINT) SHEILA UPCHEGO
TITLE SENIOR LAND ADMIN SPECIALIST
SIGNATURE Sheila Upchego
DATE 11/14/2007

RECEIVED
NOV 20 2007
DIV. OF OIL, GAS & MINING

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(5/2000)

(See Instructions on Reverse Side)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

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1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

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2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

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4. LOCATION OF WELL

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QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

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☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: PRODUCTION START-UP
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE SUBJECT WELL LOCATION WAS PLACED ON PRODUCTION ON 02/07/2008 AT 11:00 AM.

PLEASE R EFER TO THE ATTACHED CHRONLOGICAL WELL HISTORY.

RECEIVED
FEB 2 5 2008
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 2/12/2008

(This space for State use only)

(5/2000) (See Instructions on Reverse Side)

Anadarko Petroleum Corporation

Anadarko Petroleum Corporation
1368 S. 1200 East
Vernal, UT 84078

CHRONOLOGICAL WELL HISTORY

NBU 1021-31A
LOCATION NENE SEC.10, T10S, R21E
UINTAH COUNTY, UT

DATE	ACTIVITY		STATUS
09/21/07	LOCATION STARTED	ENSIGN 83	
10/08/07	LOCATION COMPLETED	ENSIGN 83	P/L IN, WOBR
10/09/07	SET CONDUCTOR	ENSIGN 83	WOAR
10/12/07	SET AIR RIG	ENSIGN 83	DRILLING
10/18/07	9-5/8" @1916'	ENSING 83	WORT

11/05/07 TD: 4520' Csg. 9 5/8" @ 2131' MW: 9.3 SD: 11/3/07 DSS: 2
Move to NBU 1021-31A. RURT. NU and test BOPE. PUDS and drill FE. Rotary spud @ 1930 hrs 11/3/07. Drill from 1955'-4520'. DA.

11/06/07 TD: 5724' Csg. 9 5/8" @ 2131' MW: 9.7 SD: 11/3/07 DSS: 3
Drill from 4520'-5724'. DA.

11/07/07 TD: 6515' Csg. 9 5/8" @ 2131' MW: 10.5 SD: 11/3/07 DSS: 4
Drill from 5724'-6515'. DA @ report time.

11/08/07 TD: 6988' Csg. 9 5/8" @ 2131' MW: 10.9 SD: 11/3/07 DSS: 5
Drill from 6515'-6988'. TFNB @ report time.

11/09/07 TD: 7586' Csg. 9 5/8" @ 2131' MW: 11.2 SD: 11/3/07 DSS: 6
Finish bit trip. Drill from 6988'-7586'. DA @ report time.

11/12/07 TD: 9100' Csg. 9 5/8" @ 2131' MW: 11.7 SD: 11/3/07 DSS: 9
Drill f/ 7586'-8496'. TFNB. Drill to 9100'. CCH and short trip @ report time.

11/13/07 TD: 9100' Csg. 9 5/8" @ 2131' MW: 11.7 SD: 11/3/07 DSS: 10
Short trip, CCH, and LDDS. Run logs and bridged out at 5605'. RU and run 4.5" prod csg. CCH and prep to cement @ report time.

11/14/07 TD: 9100' Csg. 9 5/8" @ 2131' MW: 11.7 SD: 11/3/07 DSS: 11
Cement 4 ½" production casing. Land casing and release rig @ 1230 hrs 11/13/07. RDRT.

02/01/08 **MIRU**
Days On Completion: 1
Remarks: 7 AM: MOVE TO LOC. RU RIG. SPOT EQUIPMENT. ND WH, NU BOP. PU 3 7/8" MILL. RIH PU 2 3/8" J55 TBG (288 JTS). TAG PBTD @ 9039'. BROKE CIRC & CIRC WELL CLEAN. POOH L/D 10 JTS. EOT @ 8743'. SWI, SDFN.

02/02/08 **PREP TO FRAC**

Days On Completion: 2
Remarks: 7 AM: HSM. OPEN WELL. POOH W/ TBG & MILL. ND BOP, NU FRAC VALVES. FILL WELL. PRES TEST TO 7500 PSI (HELD). BLEED PRESS. SWI, SDFN. READY FOR FRAC ON 2/4/08.

02/04/08 **PERF AND FRAC**
Days On Completion: 4
Remarks: DAY #3] 7:00 MIRU CUTTERS WIRE LINE & WEATHERFORD FRAC EQUIP.

STG #1] P/U RIH W/ 3-3/8 EXP GUN,23 GRM, 0.36". PERF MESAVERDE 8970'-8976' 4 SPF, 24 HOLES, 8876'-8880' 4 SPF, 16 HOLES [40 HOLES] WHP=0#, BRK DN PERFS W/ 4520#, INJT PSI=5450, INJT RT=51.5, ISIP=4520#, FG=.81, PUMP'D 1005.2 BBLS SLK/WTR W/ 23359# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3016#, FG=.78, AR=51.5, AP=5102, MR=51.7, MP=7129, NPI=-245, 24/40 PERFS OPEN 60%

STG #2] P/U RIH W/ 3-3/8 EXP GUN,23 GRM, 0.36" & BKR 8K CBP. SET CBP @ 8835'. PERF MESAVERDE 8800'-8805' 4 SPF, 20 HOLES, 8746'-8749' 3 SPF, 9 HOLES, 8662'-8665' 4 SPF 12 HOLES [41 HOLES] WHP=0#, BRK DN PERFS W/ 7275#, INJT PSI=5300, INJT RT=50, ISIP=3120#, FG=.80, PUMP'D 2239 BBLS SLK/WTR W/ 75358# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3192#, FG=.81, AR=50.6, AP=4949, MR=51, MP=7290, NPI=72, 24/41 PERFS OPEN 60%

STG #3] P/U RIH W/ 3-3/8 EXP GUN,23 GRM, 0.36" & BKR 8K CBP. SET CBP @ 8600'. PERF MESAVERDE 8560'-8570' 3 SPF, 30 HOLES, 8438'-8442' 3 SPF, 12 HOLES, [42 HOLES] WHP=0#, BRK DN PERFS W/ 5800#, INJT PSI=5550, INJT RT=50.6, ISIP=3528#, FG=.86, PUMP'D 2974.1 BBLS SLK/WTR W/ 105531# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2906#, FG=.78, AR=50.1, AP=5104, MR=50.2, MP=7254, NPI=-621, 38/42 PERFS OPEN 88%

STG #4] P/U RIH W/ 3-3/8 EXP GUN,23 GRM, 0.36" & BKR 8K CBP. SET CBP @ 8345'. PERF MESAVERDE 8305'-8315' 4 SPF, 40 HOLES, [40 HOLES] WHP=0#, BRK DN PERFS W/ 6574#, INJT PSI=4530, INJT RT=50.6, ISIP=3151#, FG=.82, PUMP'D 655.8 BBLS SLK/WTR W/ 18545# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3002#, FG=.80, AR=50.2, AP=4769, MR=50.4, MP=6771, NPI=-149, 29/40 PERFS OPEN 72%

STG #5] P/U RIH W/ 3-3/8 EXP GUN,23 GRM, 0.36" & BKR 8K CBP. SET CBP @ 7788'. PERF MESAVERDE 7756'-7758' 4 SPF, 8 HOLES, 7700'-7708' 4 SPF 32 HOLES [40 HOLES] WHP=0#, BRK DN PERFS W/ 6136#, INJT PSI=5000, INJT RT=50.1, ISIP=2178#, FG=.72, PUMP'D 1877.4 BBLS SLK/WTR W/ 71480# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=3255#, FG=.86, AR=50.1, AP=4559, MR=50.2, MP=6136, NPI=1077, 24/40 PERFS OPEN 60%

TOP KILL] P/U RIH W/ BKR 8K CBP. SET CBP @ 7650', POOH, R/D WIRE LINE & WEATHERFORD FRAC EQUIP, SWIFN 6:00

02/05/08 **DRILL CBP'S**
Days On Completion: 5
Remarks: DAY #4] HSM, P/U PWR SWVL
OPEN WELL, 0#, N/D FRAC VALVES, N/U BOPS, R/U TBG EQUIP, RIH W/ 244 JNT 2-3/8 J-55 TBG TAG KILL PLUG @ 7650' PLUG #1] P/U PWR SWVL, EST CIRC, DRL THROUGH BKR 8K CBP @ 7650' IN 1 HR, 1200# INCREASE, CONTINUE TO RIH. PLUG #2] TAG SAND @ 7758' [30' FILL] C/O & DRL THROUGH BKR 8K CBP @ 7788' IN 15 MIN. 950# INCREASE, CONTINUE TO RIH PLUG #3] TAG SAND @ 8315' [30' FILL] C/O & DRL THROUGH BKR 8K CBP @ 8345' IN 15 MIN. 400# INCREASE, CONTINUE TO RIH PLUG #4] TAG SAND @ 8570' [30' FILL] C/O & DRL THROUGH BKR 8K CBP @ 8600' IN 12 MIN. 400# INCREASE, CONTINUE TO RIH PLUG #5] TAG SAND @ 8800' [30' FILL] C/O & DRL THROUGH BKR 8K

CBP @ 8830' IN 15 MIN. 300# INCREASE, CONTINUE TO RIH, TAG SAND @ 8981' C/O TO PBTD @ 9032' CIRC HOLE FOR 20 MIN. RIG DN PWR SWVL, L/D 20 JNTS ON FLOAT,

TBG DETAIL

K.B	17.00
HANGER 4-1/16	.83
267 JNTS 2-3/8 J-55	8384.61
PROFILE NIPPLE ["X" NIPPLE 1.875]	2.20
EOT @	8404.64

293 JNTS BROUGHT TO LOC
267 JNTS USED IN WELL
26 JNTS SENT BACK

02/07/08 **FLOWBACK REPORT:** CP 2100#, TP 900#, CK 20/64", 31 BWPH, LOAD REC'D 803 BBLS, REMAINING LTR 3528 BBLS

WENT ON SALES: @ 11:00 AM, 30 MCF, 1000 TBG, 1300 CSG, 20/64 CK, 1008 BBWH

02/08/08 **FLOWBACK REPORT:** CP 1650#, TP 725#, CK 20/64", 16 BWPH, LOAD REC'D 461 BBLS, REMAINING LTR 4867 BBLS

ON SALES: 376 MCF, 0 BC, 744 BW, TP: 900#, CP: 2100#, 20/64 CHK, 15 HRS, LP: 183#.

02/09/08 **FLOWBACK REPORT:** CP 1650#, TP 600#, CK 20/64", 12 BWPH, LOAD REC'D 298 BBLS, REMAINING LTR 4569 BBLS

ON SALES: 879 MCF, 0 BC, 432 BW, TP: 725#, CP: 1650#, 20/64 CHK, 24 HRS, LP: 222#.

02/10/08 **ON SALES:** 840 MCF, 0 BC, 288 BW, TP: 600#, CP: 1650#, 20/64 CHK, 24 HRS, LP: 235#.

02/11/08 **ON SALES:** 739 MCF, 0 BC, 288 BW, TP: 593#, CP: 1206#, 20/64 CHK, 24 HRS, LP: 208#.

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

b. TYPE OF WORK: NEW WELL ☑ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10 FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 744'FNL, 815'FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH:

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

12. COUNTY: UINTAH

13. STATE: UTAH

14. DATE SPUDDED:	15. DATE T.D. REACHED:	16. DATE COMPLETED:	17. ELEVATIONS (DF, RKB, RT, GL):
10/10/2007	11/12/2007	2/7/2008 ABANDONED ☐ READY TO PRODUCE ☑	5293'GL

18. TOTAL DEPTH: MD 9,100 TVD	19. PLUG BACK T.D.: MD 9,032 TVD	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
CBL-CCL-GR; CD/DN/ARRAY COMP TRUE RES
RSL

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
12 1/4"	9 5/8 J-55	36#		1,955		485			
7 7/8"	4 1/2 I-80	11.6#		9,100		1615			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,404							

26. PRODUCING INTERVALS WSMVD - Pa Unit PA

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A) MESAVERDE	7,700	8,976			7,700 8,976	0.36	203	Open ☑ Squeezed ☐
(B)								Open ☐ Squeezed ☐
(C)								Open ☐ Squeezed ☐
(D)								Open ☐ Squeezed ☐

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MAR 03 2008
DIV. OF OIL, GAS & MINING

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
7700'-8976'	PMP 8751 BBLS SLICK H2O & 294,273# 30/50 SD

29. ENCLOSED ATTACHMENTS:

☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

(5/2000)

(CONTINUED ON BACK)

31. INITIAL PRODUCTION — **INTERVAL A (As shown in item #26)**

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
2/7/2008	2/9/2008	24		0	879	432	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	725	1,650					0	879	432	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
WASATCH MESAVERDE	4,185 7,024	7,024			

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE SENIOR LAND ADMIN SPECIALIST

SIGNATURE DATE 2/25/2008

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT#891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 744' FNL, 815' FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☑ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE OPERATOR REQUESTS AUTHORIZATION TO RECOMPLETE THE SUBJECT WELL LOCATION. THE OPERATOR PROPOSES TO COMPLETE THE WASATCH FORMATION, AND COMMINGLE THE NEWLY WASATCH FORMATION ALONG WITH THE EXISTING FORMATION.

PLEASE REFER TO THE ATTACHED RECOMPLETION PROCEDURE.

COPY SENT TO OPERATOR

Date: 10.23.2008

Initials: KS

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE Sheila Upchego DATE 10/14/2008

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

DATE: 10/21/08

BY: Dustin Doucet

Cause 173-14

(See Instructions on Reverse Side)

(5/2000)

RECEIVED

OCT 21 2008

DIV. OF OIL, GAS & MINING

Name: NBU 1021-31A
Location: NE NE Sec 31 T10S R21E
Uintah County, UT
Date: 10/09/2008

ELEVATIONS: 5293 GL 5310 KB

TOTAL DEPTH: 9100 **PBTD:** 9053
SURFACE CASING: 9 5/8", 36# J-55 ST&C @ 1934'
PRODUCTION CASING: 4 1/2", 11.6#, I-80 LT&C @ 9098'
Marker Joint **4181-4202'**

TUBULAR PROPERTIES:

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES (bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 ½" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 ½" Annulus				0.0101	0.4227
2 7/8" 6.5# N-80 tbg	10570	11160	2.347	0.005794	0.2433

TOPS:

1021' Green River
1566' Mahogany
4185' Wasatch
7024' Mesaverde

Estimated T.O.C. from CBL @1800

GENERAL:

- There will need to be two gun runs for stages 7 and 8
- A minimum of **14** tanks (cleaned lined 500 bbl) of **FRESH** water will be required. Note: Use biocide in tanks and the water needs to be at least 65-75°F at pump time.
- All perforation depths are from Halliburtons Induction-Density-Neutron log dated 11/12/2007
- **13** fracturing stages required for coverage.
- Procedure calls for 14 CBP's (**8000** psi) and 1 retrievable packer (10,000 psi)
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Put scale inhibitor 3 gals/1000 gals (in pad and ½ the ramp) and 10 gals/1000 gals in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 20/40 mesh Ottawa sand, 25# **Gel Frac**

- Maximum surface pressure **6200** psi.
- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). DO NOT OVERDISPLACE. Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- Service companies need to provide surface/production annulus pop-offs to be set for 1500 psi for each frac.
- Pump **resin coated sand** last 5,000# of all frac stages
- Tubing currently landed at~8404'

Existing Perforations:

MESAVERDE	8876	8880	4	16
MESAVERDE	8970	8976	4	24
MESAVERDE	8662	8665	4	12
MESAVERDE	8746	8749	3	9
MESAVERDE	8800	8805	4	20
MESAVERDE	8438	8442	3	12
MESAVERDE	8560	8570	3	30
MESAVERDE	8305	8315	4	40
MESAVERDE	7700	7708	4	32
MESAVERDE	7756	7758	4	8

PROCEDURE:

1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.

2. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8404'). Visually inspect for scale and consider replacing if needed.

3. If tbg looks ok consider running a gauge ring to 8230 (50' below proposed CBP). Otherwise P/U a mill and C/O to 8230 (50' below proposed CBP).

4. Set 8000 psi CBP at ~ 8156'.

5. PU 10,000 psi packer and TIH w/ 2 7/8" tbg and set packer at 7780' Existing perfs at 7756-7758'. Test tubing, packer & casing to 6200 psi..

6. Perf the following with 1 9/16" gun

Zone	From	To	spf	# of shots
MESAVERDE	8116	8126	4	40

7. POOH w/ WL. Pump 250 gal 15% HCL to perfs followed by gel. SD. Let acid soak for 5-10 min. Breakdown perfs and establish injection rate (include scale inhibitor in fluid). Fracture as outlined in Stage 1 on attached listing. FOLLOW FLUSH/SANDPLUG

CALCULATION AT TOP OF PAGE 11 Note: **The flush should be pumped as normal. Wait on sand to fall and verify top of sand with a dump bailer.** Dump Bail 10 ft of cement on top of sand plug. This should take 3 runs. Let set over night.

8. Control well as needed with 2% KCL and biocide. TOOH with 2 7/8" workstring and packer and laydown. RIH with 4 ½" 8000 psi CBP and set at~7468'. Test casing and BOPE to 6200 psi.

9. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
MESAVERDE	7380	7382	4	8
MESAVERDE	7408	7414	4	24
MESAVERDE	7436	7438	4	8

10. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~7366' and trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

11. Set 8000 psi CBP at ~7356'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
MESAVERDE	7282	7284	4	8
MESAVERDE	7311	7313	4	8
MESAVERDE	7322	7326	4	16

12. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~7232' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

13. Set 8000 psi CBP at ~7112'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6930	6932	4	8
WASATCH	6976	6978	4	8
WASATCH	7010	7012	4	8
WASATCH	7032	7034	4	8
WASATCH	7078	7082	4	16

14. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 4 on attached listing. Under-displace to ~6902' trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

15. Set 8000 psi CBP at ~6892'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6764	6766	4	8
WASATCH	6770	6772	4	8
WASATCH	6810	6812	4	8
WASATCH	6830	6832	4	8
WASATCH	6858	6862	4	16

16. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 5 on attached listing. Under-displace to ~6714' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

17. Set 8000 psi CBP at ~6628'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6442	6444	4	8
WASATCH	6476	6478	4	8
WASATCH	6534	6538	4	16
WASATCH	6574	6576	4	8
WASATCH	6596	6598	4	8

18. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 6 on attached listing. Under-displace to ~6425' and trickle 250gal 15%HCL w/ scale inhibitor in flush. NOTE TIGHT SPACING

19. Set 8000 psi CBP at ~6415'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole: **Note: 2 gun runs**

Zone	From	To	spf	# of shots
WASATCH	6228	6230	4	8
WASATCH	6252	6254	4	8
WASATCH	6274	6276	4	8
WASATCH	6289	6291	4	8
WASATCH	6315	6317	4	8
WASATCH	6344	6345	4	4
WASATCH	6382	6385	4	12

20. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 7 on attached listing. Under-displace to ~6178' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

21. Set 8000 psi CBP at ~6014'. Perf the following 3-3/8" gun, 23 gm, 0.36" hole: **Note: 2 gun runs**

Zone	From	To	spf	# of shots
WASATCH	5862	5864	4	8
WASATCH	5870	5871	4	4
WASATCH	5875	5876	4	4
WASATCH	5917	5919	4	8
WASATCH	5931	5933	4	8
WASATCH	5940	5942	4	8
WASATCH	5982	5984	4	8

22. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 8 on attached listing. Under-displace to ~5826' and trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

23. Set 8000 psi CBP at ~5816'. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5698	5700	4	8
WASATCH	5722	5724	4	8
WASATCH	5784	5786	4	8

24. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 9 on attached listing. Under-displace to ~5648' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

25. Set 8000 psi CBP at ~5606'. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5459	5461	4	8
WASATCH	5526	5528	4	8
WASATCH	5573	5576	4	12

26. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 10 on attached listing. Under-displace to ~5409' and trickle 250gal 15%HCL w/ scale inhibitor in flush .NOTE TIGHT SPACING

27. Set 8000 psi CBP at~5372'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5220	5222	4	8
WASATCH	5247	5249	4	8
WASATCH	5270	5273	4	12
WASATCH	5312	5314	4	8
WASATCH	5340	5342	4	8

28. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 11 on attached listing. Under-displace to ~5170' and trickle 250gal 15%HCL w/ scale inhibitor in flush .

29. Set 8000 psi CBP at~5088'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5009	5012	4	12
WASATCH	5048	5050	4	8
WASATCH	5054	5058	4	16

30. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 12 on attached listing. Under-displace to ~4959' and trickle 250gal 15%HCL w/ scale inhibitor in flush .NOTE TIGHT SPACING

31. Set 8000 psi CBP at~4934'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	4870	4872	4	8
WASATCH	4878	4880	4	8
WASATCH	4892	4894	4	8
WASATCH	4900	4904	4	16

32. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 13 on attached listing. Under-displace to ~4820' andflush only with fresh water.

33. Set 8000 psi CBP at~4820'.

34. TIH with 3 7/8" mill, sliding sleeve, SN and tubing.

35. Drill plugs except plug at 8180' and clean out to 8175'. This well will NOT be commingled. Land tubing at ±**7350'** , and open sliding sleeve, unless indicated otherwise by the well's behavior.

36. RDMO

37. Clean out well with foam and/or swabbing unit until steady flow has been established from recomplete.

38. MIRU

39. Mill isolation plug and commingle well. Land tubing at ~8086'

40. RDMO

For design questions, please call
Curtis Caile, Denver, CO
(406)-490-2742 (Cell)
(720)-929-6194 (Office)

For field implementation questions, please call
Robert Miller, Vernal, UT
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NOTES:

Fracturing Schedules
NBU 1021-31A
Gel Frac

4454.604
106.062

Stage	Zone	Feet of Pay	Perfs Top, ft.	Perfs Bot., ft	SPF	Holes	Rate BPM	Fluid Type	Initial ppg	Final ppg	Fluid	Volume gals	Cum Vol gals	Volume BBLs	Cum Vol BBLs	Fluid % of frac	Sand % of frac	Sand lbs	Cum. Sand lbs	Footage from CBP to Flush	Scale Inhib., gal.
1	MESAVERDE	4	8116	8126	4	40	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	14		No Perfs			0	ISIP and 5 min ISIP													17
	MESAVERDE	11		No Perfs			20	20#			Freshwate	2,754	2,754	66	66	16.0%	0.0%	0	0		8
	MESAVERDE	2		No Perfs			20	20# X-link	1	1	Freshwate	1,205	3,959	29	94	7.0%	2.0%	1,205	1,205		4
	MESAVERDE	8		No Perfs			20	20# X-link	2	2	Freshwate	1,205	5,164	29	123	7.0%	4.1%	2,410	3,615		4
	MESAVERDE	9		No Perfs			20	20# X-link	3	3	Freshwate	4,303	9,467	102	225	25.0%	21.8%	12,909	16,524		13
	MESAVERDE	0					20	20# X-link	4	4	Freshwate	3,515	13,082	86	311	21.0%	24.4%	14,459	30,983		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwate	2,410	15,491	57	369	14.0%	24.4%	14,459	45,441		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwate	1,721	17,213	41	410	10.0%	23.3%	13,770	59,211		0
	MESAVERDE	0					20	Flush (4-1/2")				1,680	18,893	40	450			2,800	62,011		17
	MESAVERDE	0						ISDP and 5 min ISDP													52
	MESAVERDE	0											18,893			100.0%					
		41		# of Perfs/stage		40									LOOK		gal/ft	425	1,631	lbs sand/ft	
													See attached Flush Sandplug calculation				CBP depth	7,468			
							22.5														
2	MESAVERDE	3	7380	7382	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	17	7408	7414	4	24	0	ISIP and 5 min ISIP													
	MESAVERDE	2	7436	7438	4	8	20	20#			Freshwate	1,886	1,886	45	45	16.0%	0.0%	0	0		6
	MESAVERDE	0					20	20# X-link	1	1	Freshwate	825	2,711	20	65	7.0%	2.0%	825	825		2
	MESAVERDE	0					20	20# X-link	2	2	Freshwate	825	3,536	20	84	7.0%	4.1%	1,650	2,475		2
	MESAVERDE	0					20	20# X-link	3	3	Freshwate	2,947	6,483	70	154	25.0%	21.8%	8,841	11,316		9
	MESAVERDE	0					20	20# X-link	4	4	Freshwate	2,475	8,959	59	213	21.0%	24.4%	9,902	21,218		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwate	1,650	10,609	39	253	14.0%	24.4%	9,902	31,119		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwate	1,179	11,788	28	281	10.0%	23.3%	9,430	40,549		0
	MESAVERDE	0					20	Flush (4-1/2")				7,192	18,980	171	452				40,549		72
	MESAVERDE	0						ISDP and 5 min ISDP													91
	MESAVERDE	0											18,980			100.0%					
		21		# of Perfs/stage		40									Flush depth	7366	gal/ft	575	1,976	lbs sand/ft	
							22.6	<< Above pump time (min)									CBP depth	7,365		18	LOOK
3	MESAVERDE	5	7282	7284	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	2	7311	7313	4	8	0	ISIP and 5 min ISIP													
	MESAVERDE	15	7322	7326	4	16	20	20#			Freshwate	1,892	1,892	45	45	16.0%	0.0%	0	0		6
	MESAVERDE	0					20	20# X-link	1	1	Freshwate	828	2,720	20	65	7.0%	2.0%	828	828		2
	MESAVERDE	0					20	20# X-link	2	2	Freshwate	828	3,548	20	84	7.0%	4.1%	1,656	2,483		2
	MESAVERDE	0					20	20# X-link	3	3	Freshwate	2,956	6,504	70	155	25.0%	21.8%	8,869	11,352		9
	MESAVERDE	0					20	20# X-link	4	4	Freshwate	2,483	8,987	59	214	21.0%	24.4%	9,933	21,285		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwate	1,656	10,643	39	253	14.0%	24.4%	9,933	31,218		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwate	1,183	11,825	28	282	10.0%	23.3%	9,460	40,678		0
	MESAVERDE	0					20	Flush (4-1/2")				7,061	18,886	168	450				40,678		70
	MESAVERDE	0						ISDP and 5 min ISDP													89
	MESAVERDE	0											18,886			100.0%					
		22		# of Perfs/stage		32									Flush depth	7232	gal/ft	550	1,882	lbs sand/ft	
							22.5	<< Above pump time (min)									CBP depth	7,112		120	
4	WASATCH	2	6930	6932	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	3	6976	6978	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	3	7010	7012	4	8	20	20#			Freshwate	1,968	1,968	47	47	16.0%	0.0%	0	0		6
	WASATCH	6	7032	7034	4	8	20	20# X-link	1	1	Freshwate	861	2,829	21	67	7.0%	2.0%	861	861		3
	WASATCH	17	7078	7082	4	16	20	20# X-link	2	2	Freshwate	861	3,690	21	88	7.0%	4.1%	1,722	2,583		3
	WASATCH	0					20	20# X-link	3	3	Freshwate	3,075	6,765	73	161	25.0%	21.8%	9,225	11,808		9
	WASATCH	0					20	20# X-link	4	4	Freshwate	2,583	9,348	62	223	21.0%	24.4%	10,332	22,140		0
	WASATCH	0					20	20# X-link	6	6	Freshwate	1,722	11,070	41	264	14.0%	24.4%	10,332	32,472		0
	WASATCH	0					20	20# X-link	8	8	Freshwate	1,230	12,300	29	293	10.0%	23.3%	9,840	42,312		0
	WASATCH	0					20	Flush (4-1/2")				6,739	19,039	160	453				42,312		67
	WASATCH	0						ISDP and 5 min ISDP													87
	WASATCH	0											19,039			100.0%					
		30		# of Perfs/stage		48									Flush depth	6902	gal/ft	410	1,410	lbs sand/ft	
							22.7	<< Above pump time (min)									CBP depth	6,892		10	LOOK
5	WASATCH	3	6764	6766	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	2	6770	6772	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	11	6810	6812	4	8	20	20#			Freshwate	1,976	1,976	47	47	16.0%	0.0%	0	0		6
	WASATCH	4	6830	6832	4	8	20	20# X-link	1	1	Freshwate	865	2,841	21	68	7.0%	2.0%	865	865		3
	WASATCH	7	6858	6862	4	16	20	20# X-link	2	2	Freshwate	865	3,705	21	88	7.0%	4.1%	1,729	2,594		3
	WASATCH	0					20	20# X-link	3	3	Freshwate	3,088	6,793	74	162	25.0%	21.8%	9,263	11,856		9
	WASATCH	0					20	20# X-link	4	4	Freshwate	2,594	9,386	62	223	21.0%	24.4%	10,374	22,230		0
	WASATCH	0					20	20# X-link	6	6	Freshwate	1,729	11,115	41	265	14.0%	24.4%	10,374	32,604		0
	WASATCH	0					20	20# X-link	8	8	Freshwate	1,235	12,350	29	294	10.0%	23.3%	9,880	42,484		0
	WASATCH	0					20	Flush (4-1/2")				6,556	18,906	156	450				42,484		65
	WASATCH	0						ISDP and 5 min ISDP													85
	WASATCH	0											18,906			100.0%					
		26		# of Perfs/stage		48									Flush depth	6714	gal/ft	475	1,634	lbs sand/ft	
							22.5	<< Above pump time (min)									CBP depth	6,629		86	
6	WASATCH	2	6442	6444	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	3	6476	6478	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	14	6534	6538	4	16	20	20#			Freshwate	2,030	2,030	48	48	16.0%	0.0%	0	0		6
	WASATCH	2	6574	6576	4	8	20	20# X-link	1	1	Freshwate	888	2,918	21	69	7.0%	2.0%	888	888		3
	WASATCH	2	6596	6598	4	8	20	20# X-link	2	2	Freshwate	888	3,805	21	91	7.0%	4.1%	1,776	2,664		3
	WASATCH	0					20	20# X-link	3	3	Freshwate	3,171	6,977	76	166	25.0%	21.8%	9,514	12,178		10
	WASATCH	0					20	20# X-link	4	4	Freshwate	2,564	9,641	63	230	21.0%	24.4%	10,655	22,833		0
	WASATCH	0					20	20# X-link	6	6	Freshwate	1,776	11,417	42	272	14.0%	24.4%	10,655	33,488		0
	WASATCH	0					20	20# X-link	8	8	Freshwate	1,269	12,685	30	302	10.0%	23.3%	10,148	43,636		0
	WASATCH	0					20	Flush (4-1/2")				6,273	18,958	149	451				43,636		62
	WASATCH	0						ISDP and 5 min ISDP													83
	WASATCH	0											18,958			100.0%					
		22		# of Perfs/stage		48									Flush depth	6425	gal/ft	590	2,030	lbs sand/ft	
																	CBP depth	6,416		10	LOOK

7	WASATCH	5	6228	6230	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	3	6252	6254	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	3	6274	6276	4	8	20	20#			Freshwate	2,095	2,095	49	49	16.0%	0.0%	0	0						6
	WASATCH	4	6289	6291	4	8	20	20#X-link	1	1	Freshwate	904	2,970	22	71	7.0%	2.0%	904	904						3
	WASATCH	2	6315	6317	4	8	20	20#X-link	2	2	Freshwate	904	3,875	22	92	7.0%	4.1%	1,808	2,712						3
	WASATCH	2	6344	6346	4	4	20	20#X-link	3	3	Freshwate	3,229	7,103	77	169	25.0%	21.8%	9,686	12,398						10
	WASATCH	3	6382	6385	4	12	20	20#X-link	4	4	Freshwate	2,712	9,815	65	234	21.0%	24.4%	10,849	23,247						0
	WASATCH	0					20	20#X-link	6	6	Freshwate	1,808	11,624	43	277	14.0%	24.4%	10,849	34,096						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,262	12,915	31	308	10.0%	23.3%	10,332	44,428						0
	WASATCH	0					20	Flush (4-1/2")				8,032	18,947	144	451				44,428						59
	WASATCH	0						ISDP and 5 min ISDP																		80
	WASATCH	0											18,947			100.0%										
		21		# of Perfs/stage		56									Flush depth	6178		gal/ft	616	CBP depth	5,014	164	lbs sand/ft			
						22.5																				
8	WASATCH	2	5862	5864	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	2	5870	5871	4	4	0	ISIP and 5 min ISIP																	0
	WASATCH	3	5875	5876	4	4	20	20#			Freshwate	2,112	2,112	50	50	16.0%	0.0%	0	0						6
	WASATCH	2	5917	5919	4	8	20	20#X-link	1	1	Freshwate	924	3,036	22	72	7.0%	2.0%	924	924						3
	WASATCH	4	5931	5933	4	8	20	20#X-link	2	2	Freshwate	924	3,960	22	94	7.0%	4.1%	1,848	2,772						3
	WASATCH	3	5940	5942	4	8	20	20#X-link	3	3	Freshwate	3,300	7,260	79	173	25.0%	21.8%	9,900	12,672						10
	WASATCH	2	5982	5984	4	8	20	20#X-link	4	4	Freshwate	2,772	10,032	66	239	21.0%	24.4%	11,088	23,760						0
	WASATCH	0					20	20#X-link	6	6	Freshwate	1,848	11,880	44	283	14.0%	24.4%	11,088	34,848						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,320	13,200	31	314	10.0%	23.3%	10,560	45,408						0
	WASATCH	0					20	Flush (4-1/2")				5,689	18,889	135	450				45,408						57
	WASATCH	0						ISDP and 5 min ISDP																		78
	WASATCH	0											18,889			100.0%										
		16		# of Perfs/stage		48									Flush depth	5926		gal/ft	625	CBP depth	5,816	18	lbs sand/ft		LOOK	
						22.5																				
9	WASATCH	3	5698	5700	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	3	5722	5724	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	1	5784	5786	4	8	20	20#			Freshwate	2,136	2,136	51	51	16.0%	0.0%	0	0						6
	WASATCH	0					20	20#X-link	1	1	Freshwate	935	3,071	22	73	7.0%	2.0%	935	935						3
	WASATCH	0					20	20#X-link	2	2	Freshwate	935	4,005	22	95	7.0%	4.1%	1,869	2,804						3
	WASATCH	0					20	20#X-link	3	3	Freshwate	3,938	7,343	79	175	25.0%	21.8%	10,013	12,815						10
	WASATCH	0					20	20#X-link	4	4	Freshwate	2,804	10,146	67	242	21.0%	24.4%	11,214	24,030						0
	WASATCH	0					20	20#X-link	6	5	Freshwate	1,869	12,015	45	286	14.0%	24.4%	11,214	35,244						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,335	13,350	32	318	10.0%	23.3%	10,680	45,924						0
	WASATCH	0					20	Flush (4-1/2")				5,515	18,865	131	449				45,924						55
	WASATCH	0						ISDP and 5 min ISDP																		77
	WASATCH	0											18,865			100.0%										
		8		# of Perfs/stage		24									Flush depth	5648		gal/ft	2,225	CBP depth	5,606	42	lbs sand/ft			
						22.5																				
10	WASATCH	2	5459	5461	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	1	5526	5528	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	1	5573	5576	4	12	20	20#			Freshwate	2,184	2,184	52	52	16.0%	0.0%	0	0						7
	WASATCH	0					20	20#X-link	1	1	Freshwate	956	3,140	23	75	7.0%	2.0%	956	956						3
	WASATCH	0					20	20#X-link	2	2	Freshwate	956	4,095	23	98	7.0%	4.1%	1,911	2,867						3
	WASATCH	0					20	20#X-link	3	3	Freshwate	3,413	7,508	81	179	25.0%	21.8%	10,238	13,104						10
	WASATCH	0					20	20#X-link	4	4	Freshwate	2,867	10,374	68	247	21.0%	24.4%	11,466	24,570						0
	WASATCH	0					20	20#X-link	6	5	Freshwate	1,911	12,285	46	293	14.0%	24.4%	11,466	36,036						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,365	13,650	33	325	10.0%	23.3%	10,920	46,956						0
	WASATCH	0					20	Flush (4-1/2")				5,281	18,931	126	451				46,956						52
	WASATCH	0						ISDP and 5 min ISDP																		75
	WASATCH	0											18,931			100.0%										
		4		# of Perfs/stage		28									Flush depth	6409		gal/ft	3,900	CBP depth	5,372	37	lbs sand/ft		LOOK	
						22.5																				
11	WASATCH	1	5220	5222	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	6	5247	5249	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	5	5270	5273	4	12	20	20#			Freshwate	2,215	2,215	53	53	16.0%	0.0%	0	0						7
	WASATCH	3	6312	5314	4	8	20	20#X-link	1	1	Freshwate	969	3,184	23	76	7.0%	2.0%	969	969						3
	WASATCH	3	5340	5342	4	8	20	20#X-link	2	2	Freshwate	969	4,154	23	99	7.0%	4.1%	1,938	2,907						3
	WASATCH	3		No Perfs			20	20#X-link	3	3	Freshwate	3,461	7,615	82	181	25.0%	21.8%	10,384	13,291						10
	WASATCH	0					20	20#X-link	4	4	Freshwate	2,907	10,522	69	251	21.0%	24.4%	11,630	24,921						0
	WASATCH	0					20	20#X-link	6	6	Freshwate	1,938	12,461	46	297	14.0%	24.4%	11,630	36,551						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,385	13,845	33	330	10.0%	23.3%	11,076	47,627						0
	WASATCH	0					20	Flush (4-1/2")				5,048	18,893	120	450				47,627						50
	WASATCH	0						ISDP and 5 min ISDP																		73
	WASATCH	0											18,893			100.0%										
		20		# of Perfs/stage		44									Flush depth	5170		gal/ft	710	CBP depth	5,099	82	lbs sand/ft			
						22.5																				
12	WASATCH	3	5009	5012	4	12	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	2	5048	5050	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	8	5054	5058	4	16	20	20#			Freshwate	2,246	2,246	53	53	16.0%	0.0%	0	0						7
	WASATCH	0					20	20#X-link	1	1	Freshwate	983	3,229	23	77	7.0%	2.0%	983	983						3
	WASATCH	0					20	20#X-link	2	2	Freshwate	983	4,212	23	100	7.0%	4.1%	1,966	2,948						3
	WASATCH	0					20	20#X-link	3	3	Freshwate	3,510	7,722	84	184	25.0%	21.8%	10,530	13,478						11
	WASATCH	0					20	20#X-link	4	4	Freshwate	2,948	10,670	70	254	21.0%	24.4%	11,794	25,272						0
	WASATCH	0					20	20#X-link	6	6	Freshwate	1,966	12,636	47	301	14.0%	24.4%	11,794	37,066						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,404	14,040	33	334	10.0%	23.3%	11,232	48,298						0
	WASATCH	0					20	Flush (4-1/2")				4,842	18,882	115	450				48,298						48
	WASATCH	0						ISDP and 5 min ISDP																		71
	WASATCH	0											18,882			100.0%										
		13		# of Perfs/stage		36									Flush depth	4959		gal/ft	1,080	CBP depth	4,934	25	lbs sand/ft		LOOK	
						22.5																				
13	WASATCH	8	4870	4972	4	8	Varied	Pump-in test			Freshwater		0	0	0										
	WASATCH	4	4878	4880	4	8	0	ISIP and 5 min ISIP																	0
	WASATCH	3	4892	4894	4	8	20	20#			Freshwate	2,274	2,274	54	54	16.0%	0.0%	0	0						7
	WASATCH	8	4900	4904	4	16	20	20#X-link	1	1	Freshwate	995	3,268	24	78	7.0%	2.0%	995	995						3
	WASATCH	3		No Perfs			20	20#X-link	2	2	Freshwate	995	4,263	24	102	7.0%	4.1%	1,989	2,984						3
	WASATCH	0					20	20#X-link	3	3	Freshwate	3,553	7,816	85	186	25.0%	21.8%	10,658	13,642						11
	WASATCH	0					20	20#X-link	4	4	Freshwate	2,984	10,800	71	257	21.0%	24.4%	11,936	25,578						0
	WASATCH	0					20	20#X-link	6	6	Freshwate	1,989	12,789	47	305	14.0%	24.4%	11,935	37,514						0
	WASATCH	0					20	20#X-link	8	8	Freshwate	1,421	14,210	34	338	10.0%	23.3%	11,368	48,882						0
	WASATCH	0					20	Flush (4-1/2")				4,708	18,916	112	450				48,882						16
	WASATCH	0						ISDP and 5 min ISDP																		39
	WASATCH	0											18,916			100.0%										
		25		# of Perfs/stage		40									Flush depth	4920		gal/ft	580	CBP depth	4,920	0	lbs sand/ft		LOOK	
						22.5																				
	Totals	264				532						Total Fluid	245,984	gals	5,857	bbls				Total Sand	599,193	lbs				
						0							5,857	bbls			13.0	bpm					Total Scale Inhib.		629	

NBU 1021-31A
Perforation and CBP Summary

Stage	Zones	Perforations Top, ft	Perforations Bottom, ft	SPF	Holes		Fracture Coverage		
1	MESAVERDE	8116	8126	4	40		7988	to	7991.5
	MESAVERDE		No Perfs				8050	to	8063.5
	MESAVERDE		No Perfs				8106.5	to	8117
	MESAVERDE		No Perfs				8119	to	8121
	MESAVERDE		No Perfs				8133	to	8141
	MESAVERDE		No Perfs				8143	to	8146
	# of Perfs/stage				40		CBP DEPTH	7,468	
2	MESAVERDE	7380	7382	4	8		7380	to	7382.5
	MESAVERDE	7408	7414	4	24		7403	to	7419.5
	MESAVERDE	7436	7438	4	8		7437	to	7438.5
	# of Perfs/stage				32		CBP DEPTH	7,356	
3	MESAVERDE	7282	7284	4	8		7279	to	7283.5
	MESAVERDE	7311	7313	4	8		7311	to	7313
	MESAVERDE	7322	7326	4	16		7319.5	to	7334.5
	# of Perfs/stage				48		CBP DEPTH	7,112	
4	WASATCH	6930	6932	4	8		6930	to	6932
	WASATCH	6976	6978	4	8		6975	to	6978
	WASATCH	7010	7012	4	8		7011	to	7014
	WASATCH	7032	7034	4	8		7030	to	7036.5
	WASATCH	7078	7082	4	16		7065.5	to	7082
	# of Perfs/stage				48		CBP DEPTH	6,892	
5	WASATCH	6764	6766	4	8		6763.5	to	6766.5
	WASATCH	6770	6772	4	8		6770.5	to	6772.5
	WASATCH	6810	6812	4	8		6808	to	6818
	WASATCH	6830	6832	4	8		6830	to	6833.5
	WASATCH	6858	6862	4	16		6856	to	6862.5
	# of Perfs/stage				48		CBP DEPTH	6,628	
6	WASATCH	6442	6444	4	8		6441.5	to	6443.5
	WASATCH	6476	6478	4	8		6475.5	to	6478
	WASATCH	6534	6538	4	16		6524.5	to	6538
	WASATCH	6574	6576	4	8		6575	to	6577
	WASATCH	6596	6598	4	8		6587.5	to	6599
	# of Perfs/stage				56		CBP DEPTH	6,415	
7	WASATCH	6228	6230	4	8		6226.5	to	6231.5
	WASATCH	6252	6254	4	8		6252	to	6255
	WASATCH	6274	6276	4	8		6274.5	to	6277.5
	WASATCH	6289	6291	4	8		6288.5	to	6292
	WASATCH	6315	6317	4	8		6316	to	6317.5
	WASATCH	6344	6345	4	4		6343.5	to	6345.5
	WASATCH	6382	6385	4	12		6381	to	6384
	# of Perfs/stage				48		CBP DEPTH	6,014	
8	WASATCH	5862	5864	4	8		5862.5	to	5864.5
	WASATCH	5870	5871	4	4		5869.5	to	5871
	WASATCH	5875	5876	4	4		5874	to	5876.5
	WASATCH	5917	5919	4	8		5917.5	to	5918
	WASATCH	5931	5933	4	8		5930.5	to	5934.5
	WASATCH	5940	5942	4	8		5940.5	to	5943.5
	WASATCH	5982	5984	4	8		5982.5	to	5984
	# of Perfs/stage				24		CBP DEPTH	5,816	
9	WASATCH	5698	5700	4	8		5699	to	5701.5
	WASATCH	5722	5724	4	8		5723	to	5725.5
	WASATCH	5784	5786	4	8		5784	to	5785
	# of Perfs/stage				28		CBP DEPTH	5,606	
10	WASATCH	5459	5461	4	8		5459.5	to	5461
	WASATCH	5526	5528	4	8		5526	to	5527
	WASATCH	5573	5576	4	12		5574	to	5575
	# of Perfs/stage				44		CBP DEPTH	5,372	
11	WASATCH	5220	5222	4	8		5248	to	5249
	WASATCH	5247	5249	4	8		5213	to	5219
	WASATCH	5270	5273	4	12		5269	to	5273.5
	WASATCH	5312	5314	4	8		5274.5	to	5277
	WASATCH	5340	5342	4	8		5311.5	to	5314.5
	WASATCH		No Perfs				5339.5	to	5342
	# of Perfs/stage				36		CBP DEPTH	5,088	
12	WASATCH	5009	5012	4	12		5010	to	5012.5
	WASATCH	5048	5050	4	8		5047	to	5049
	WASATCH	5054	5058	4	16		5053.5	to	5062
	# of Perfs/stage				40		CBP DEPTH	4,934	
13	Totals	4870	4872	4	8		4867	to	4875
		4878	4880	4	8		4877.5	to	4881
		4892	4894	4	8		4891	to	4894
		4900	4904	4	16		4897	to	4904.5
			No Perfs				4907.5	to	4910
							CBP DEPTH	4,920	
	Totals				532				

		Stage 1				
		(from wellhead to top perf)				
		Depth	**Footage**	**I.D.**	**BBL/ft**	**BBL**
Casing Segment 1	4 1/2" 11.6 #	0	0	4	0.01554	0.00
Casing Segment 2	2 7/8" 6.5 #	7768	7768	2.441	0.00579	44.96
Csg to Top Perf	4 1/2" 11.6 #	8116	348	4	0.01554	5.41
Plug Back TD		8174				**50.37**
Top of Sand Plug	Desired	8066	108			
Top of Sand Plug	Actual	8066	0	Difference		

	Sand		**Fluid Volume**	
50 ft underflush at 8 ppg	261	pounds	1	BBL
8ppg SW plug	747	pounds	2	BBL
0 ppg linear flush	0	pounds	47	BBL
Total for Plug	**1008**	pounds	**50.37**	BBL

FORM 9

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT#891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT:

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 744' FNL, 815' FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☑ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE OPERATOR REQUESTS AUTHORIZATION TO RECOMPLETE THE SUBJECT WELL LOCATION. THE OPERATOR PROPOSES TO COMPLETE THE WASATCH FORMATION, AND COMMINGLE THE NEWLY WASATCH FORMATION ALONG WITH THE EXISTING FORMATION.

PLEASE REFER TO THE ATTACHED RECOMPLETION PROCEDURE.

COPY SENT TO OPERATOR
Date: 11.25.2008
Initials: KS

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE Sheila Upchego DATE 10/14/2008

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 11/18/08
BY: (See Instructions on Reverse Side)
*Cause 173-14

RECEIVED
OCT 20 2008
DIV. OF OIL, GAS & MINING

(5/2000)

Name: NBU 1021-31A
Location: NE NE Sec 31 T10S R21E
Uintah County, UT
Date: 10/09/2008

ELEVATIONS: 5293 GL 5310 KB

TOTAL DEPTH: 9100 **PBTD:** 9053
SURFACE CASING: 9 5/8", 36# J-55 ST&C @ 1934'
PRODUCTION CASING: 4 1/2", 11.6#, I-80 LT&C @ 9098'
Marker Joint **4181-4202'**

TUBULAR PROPERTIES:

	BURST (psi)	COLLAPSE (psi)	DRIFT DIA. (in.)	CAPACITIES (bbl/ft)	(gal/ft)
2 3/8" 4.7# J-55 tbg	7,700	8,100	1.901"	0.00387	0.1624
4 ½" 11.6# I-80 (See above)	7780	6350	3.875"	0.0155	0.6528
2 3/8" by 4 ½" Annulus				0.0101	0.4227
2 7/8" 6.5# N-80 tbg	10570	11160	2.347	0.005794	0.2433

TOPS:

1021' Green River
1566' Mahogany
4185' Wasatch
7024' Mesaverde
Estimated T.O.C. from CBL @1800

GENERAL:

- There will need to be two gun runs for stages 7 and 8
- A minimum of **14** tanks (cleaned lined 500 bbl) of **FRESH** water will be required. Note: Use biocide in tanks and the water needs to be at least 65-75°F at pump time.
- All perforation depths are from Halliburtons Induction-Density-Neutron log dated 11/12/2007
- **13** fracturing stages required for coverage.
- Procedure calls for 14 CBP's (**8000** psi) and 1 retrievable packer (10,000 psi)
- Calculate open perforations after each breakdown. If less than 60% of the perforations appear to be open, ball out with 15% HCl.
- Put scale inhibitor 3 gals/1000 gals (in pad and ½ the ramp) and 10 gals/1000 gals in all flushes except the final stage. Remember to pre-load the casing with scale inhibitor for the very first stage with 10 gpt.
- 20/40 mesh Ottawa sand, 25# **Gel Frac**

- Maximum surface pressure **6200** psi.
- Flush volumes are the sum of slick water and acid used during displacement (include scale inhibitor as mentioned above). DO NOT OVERDISPLACE. Stage acid and scale inhibitor if necessary to cover the next perforated interval.
- Service companies need to provide surface/production annulus pop-offs to be set for 1500 psi for each frac.
- Pump **resin coated sand** last 5,000# of all frac stages
- Tubing currently landed at~8404'

Existing Perforations:

MESAVERDE	8876	8880	4	16
MESAVERDE	8970	8976	4	24
MESAVERDE	8662	8665	4	12
MESAVERDE	8746	8749	3	9
MESAVERDE	8800	8805	4	20
MESAVERDE	8438	8442	3	12
MESAVERDE	8560	8570	3	30
MESAVERDE	8305	8315	4	40
MESAVERDE	7700	7708	4	32
MESAVERDE	7756	7758	4	8

PROCEDURE:

1. MIRU. Control well with recycled water and biocide as required. ND WH, NU BOP's and test.

2. TOOH with 2-3/8", 4.7#, J-55 (or N-80) tubing (currently landed at ~8404'). Visually inspect for scale and consider replacing if needed.

3. If tbg looks ok consider running a gauge ring to 8230 (50' below proposed CBP). Otherwise P/U a mill and C/O to 8230 (50' below proposed CBP).

4. Set 8000 psi CBP at ~ 8156'.

5. PU 10,000 psi packer and TIH w/ 2 7/8" tbg and set packer at 7780' Existing perfs at 7756-7758'. Test tubing, packer & casing to 6200 psi..

6. Perf the following with 1 9/16" gun

Zone	From	To	spf	# of shots
MESAVERDE	8116	8126	4	40

7. POOH w/ WL. Pump 250 gal 15% HCL to perfs followed by gel. SD. Let acid soak for 5-10 min. Breakdown perfs and establish injection rate (include scale inhibitor in fluid). Fracture as outlined in Stage 1 on attached listing. FOLLOW FLUSH/SANDPLUG

CALCULATION AT TOP OF PAGE 11 Note: **The flush should be pumped as normal. Wait on sand to fall and verify top of sand with a dump bailer.** Dump Bail 10 ft of cement on top of sand plug. This should take 3 runs. Let set over night.

8. Control well as needed with 2% KCL and biocide. TOOH with 2 7/8" workstring and packer and laydown. RIH with 4 ½" 8000 psi CBP and set at~7468'. Test casing and BOPE to 6200 psi.

9. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
MESAVERDE	7380	7382	4	8
MESAVERDE	7408	7414	4	24
MESAVERDE	7436	7438	4	8

10. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 2 on attached listing. Under-displace to ~7366' and trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

11. Set 8000 psi CBP at ~7356'. Perf the following 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
MESAVERDE	7282	7284	4	8
MESAVERDE	7311	7313	4	8
MESAVERDE	7322	7326	4	16

12. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 3 on attached listing. Under-displace to ~7232' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

13. Set 8000 psi CBP at ~7112'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6930	6932	4	8
WASATCH	6976	6978	4	8
WASATCH	7010	7012	4	8
WASATCH	7032	7034	4	8
WASATCH	7078	7082	4	16

14. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 4 on attached listing. Under-displace to ~6902' trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

15. Set 8000 psi CBP at ~6892'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6764	6766	4	8
WASATCH	6770	6772	4	8
WASATCH	6810	6812	4	8
WASATCH	6830	6832	4	8
WASATCH	6858	6862	4	16

16. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 5 on attached listing. Under-displace to ~6714' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

17. Set 8000 psi CBP at ~6628'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole:

Zone	From	To	spf	# of shots
WASATCH	6442	6444	4	8
WASATCH	6476	6478	4	8
WASATCH	6534	6538	4	16
WASATCH	6574	6576	4	8
WASATCH	6596	6598	4	8

18. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 6 on attached listing. Under-displace to ~6425' and trickle 250gal 15%HCL w/ scale inhibitor in flush. NOTE TIGHT SPACING

19. Set 8000 psi CBP at ~6415'. Perf the following with 3-3/8" gun, 23 gm, 0.36" hole: **Note: 2 gun runs**

Zone	From	To	spf	# of shots
WASATCH	6228	6230	4	8
WASATCH	6252	6254	4	8
WASATCH	6274	6276	4	8
WASATCH	6289	6291	4	8
WASATCH	6315	6317	4	8
WASATCH	6344	6345	4	4
WASATCH	6382	6385	4	12

20. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 7 on attached listing. Under-displace to ~6178' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

21. Set 8000 psi CBP at ~6014'. Perf the following 3-3/8" gun, 23 gm, 0.36" hole: **Note: 2 gun runs**

Zone	From	To	spf	# of shots
WASATCH	5862	5864	4	8
WASATCH	5870	5871	4	4
WASATCH	5875	5876	4	4
WASATCH	5917	5919	4	8
WASATCH	5931	5933	4	8
WASATCH	5940	5942	4	8
WASATCH	5982	5984	4	8

22. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 8 on attached listing. Under-displace to ~5826' and trickle 250gal 15%HCL w/ scale inhibitor in flush. **NOTE TIGHT SPACING**

23. Set 8000 psi CBP at ~5816'. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5698	5700	4	8
WASATCH	5722	5724	4	8
WASATCH	5784	5786	4	8

24. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 9 on attached listing. Under-displace to ~5648' and trickle 250gal 15%HCL w/ scale inhibitor in flush.

25. Set 8000 psi CBP at ~5606'. Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5459	5461	4	8
WASATCH	5526	5528	4	8
WASATCH	5573	5576	4	12

26. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 10 on attached listing. Under-displace to ~5409' and trickle 250gal 15%HCL w/ scale inhibitor in flush .NOTE TIGHT SPACING

27. Set 8000 psi CBP at~5372'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5220	5222	4	8
WASATCH	5247	5249	4	8
WASATCH	5270	5273	4	12
WASATCH	5312	5314	4	8
WASATCH	5340	5342	4	8

28. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 11 on attached listing. Under-displace to ~5170' and trickle 250gal 15%HCL w/ scale inhibitor in flush .

29. Set 8000 psi CBP at~5088'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	5009	5012	4	12
WASATCH	5048	5050	4	8
WASATCH	5054	5058	4	16

30. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 12 on attached listing. Under-displace to ~4959' and trickle 250gal 15%HCL w/ scale inhibitor in flush .NOTE TIGHT SPACING

31. Set 8000 psi CBP at~4934'. . Perf the following with 3-3/8" gun, 23 gm, 0.36"hole:

Zone	From	To	spf	# of shots
WASATCH	4870	4872	4	8
WASATCH	4878	4880	4	8
WASATCH	4892	4894	4	8
WASATCH	4900	4904	4	16

32. Breakdown perfs and establish injection rate. Fracture as outlined in Stage 13 on attached listing. Under-displace to ~4820' andflush only with fresh water.

33. Set 8000 psi CBP at~4820'.

34. TIH with 3 7/8" mill, sliding sleeve, SN and tubing.

35. Drill plugs except plug at 8180' and clean out to 8175'. This well will NOT be commingled. Land tubing at ±**7350**' , and open sliding sleeve, unless indicated otherwise by the well's behavior.

36. RDMO

37. Clean out well with foam and/or swabbing unit until steady flow has been established from recomplete.

38. MIRU

39. Mill isolation plug and commingle well. Land tubing at ~8086'

40. RDMO

For design questions, please call
Curtis Caile, Denver, CO
(406)-490-2742 (Cell)
(720)-929-6194 (Office)

For field implementation questions, please call
Robert Miller, Vernal, UT
4350781 7041 (Office)

NOTES:

Fracturing Schedules
NBU 1021-31A
Gel Frac

4454.604
106.062

Stage	Zone	Feet of Pay	Perfs Top, ft.	Perfs Bot., ft	SPF	Holes	Rate BPM	Fluid Type	Initial ppg	Final ppg	Fluid	Volume gals	Cum Vol gals	Volume BBLs	Cum Vol BBLs	Fluid % of frac	Sand % of frac	Sand lbs	Cum. Sand lbs	Footage from CBP to Flush	Scale Inhib., gal.
1	MESAVERDE	4	8116	8126	4	40	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	14		No Perfs			0	ISIP and 5 min ISIP													17
	MESAVERDE	11		No Perfs			20	20#			Freshwater	2,754	2,754	66	66	16.0%	0.0%	0	0		8
	MESAVERDE	2		No Perfs			20	20# X-link	1	1	Freshwater	1,205	3,959	29	94	7.0%	2.0%	1,205	1,205		4
	MESAVERDE	8		No Perfs			20	20# X-link	2	2	Freshwater	1,205	5,164	29	123	7.0%	4.1%	2,410	3,615		4
	MESAVERDE	3		No Perfs			20	20# X-link	3	3	Freshwater	4,303	9,467	102	225	25.0%	21.8%	12,909	16,524		13
	MESAVERDE	0					20	20# X-link	4	4	Freshwater	3,615	13,082	86	311	21.0%	24.4%	14,459	30,983		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwater	2,410	15,491	57	369	14.0%	24.4%	14,459	45,441		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwater	1,721	17,213	41	410	10.0%	23.3%	13,770	59,211		0
	MESAVERDE	0					20	Flush (4-1/2")				1,680	18,893	40	450			2,800	62,011		17
	MESAVERDE	0						ISDP and 5 min ISDP													62
	MESAVERDE	0											18,893			100.0%					
															LOOK		gal/ft	425	1,531	lbs sand/ft	
		41		# of Perfs/stage		40						See attached Flush Sandplug calculation					CBP depth	7,468			
							22.5														
2	MESAVERDE	3	7380	7382	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	17	7408	7414	4	24	0	ISIP and 5 min ISIP													
	MESAVERDE	2	7436	7438	4	8	20	20#			Freshwater	1,886	1,886	45	45	16.0%	0.0%	0	0		6
	MESAVERDE	0					20	20# X-link	1	1	Freshwater	825	2,711	20	65	7.0%	2.0%	825	825		2
	MESAVERDE	0					20	20# X-link	2	2	Freshwater	825	3,536	20	84	7.0%	4.1%	1,650	2,475		2
	MESAVERDE	0					20	20# X-link	3	3	Freshwater	2,947	6,483	70	154	25.0%	21.8%	8,841	11,316		9
	MESAVERDE	0					20	20# X-link	4	4	Freshwater	2,475	8,959	59	213	21.0%	24.4%	9,902	21,218		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwater	1,650	10,609	39	253	14.0%	24.4%	9,902	31,119		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwater	1,179	11,788	28	281	10.0%	23.3%	9,430	40,549		0
	MESAVERDE	0					20	Flush (4-1/2")				7,192	18,980	171	452				40,549		72
	MESAVERDE	0						ISDP and 5 min ISDP													91
	MESAVERDE	0											18,980			100.0%					
																	gal/ft	575	1,978	lbs sand/ft	
		21		# of Perfs/stage		40									Flush depth	7366	CBP depth	7,356		10	LOOK
							22.6	<< Above pump time (min)													
3	MESAVERDE	5	7282	7284	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	MESAVERDE	2	7311	7313	4	8	0	ISIP and 5 min ISIP													
	MESAVERDE	15	7322	7326	4	16	20	20#			Freshwater	1,892	1,892	45	45	16.0%	0.0%	0	0		6
	MESAVERDE	0					20	20# X-link	1	1	Freshwater	828	2,720	20	65	7.0%	2.0%	828	828		2
	MESAVERDE	0					20	20# X-link	2	2	Freshwater	828	3,548	20	84	7.0%	4.1%	1,656	2,483		2
	MESAVERDE	0					20	20# X-link	3	3	Freshwater	2,956	6,504	70	155	25.0%	21.8%	8,869	11,352		9
	MESAVERDE	0					20	20# X-link	4	4	Freshwater	2,483	8,987	59	214	21.0%	24.4%	9,933	21,285		0
	MESAVERDE	0					20	20# X-link	6	6	Freshwater	1,656	10,643	39	253	14.0%	24.4%	9,933	31,218		0
	MESAVERDE	0					20	20# X-link	8	8	Freshwater	1,183	11,825	28	282	10.0%	23.3%	9,460	40,678		0
	MESAVERDE	0					20	Flush (4-1/2")				7,061	18,886	168	450				40,678		70
	MESAVERDE	0						ISDP and 5 min ISDP													89
	MESAVERDE	0											18,886			100.0%					
																	gal/ft	550	1,892	lbs sand/ft	
		22		# of Perfs/stage		32									Flush depth	7232	CBP depth	7,112		120	
							22.5	<< Above pump time (min)													
4	WASATCH	2	6930	6932	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	3	6976	6978	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	3	7010	7012	4	8	20	20#			Freshwater	1,968	1,968	47	47	16.0%	0.0%	0	0		6
	WASATCH	6	7032	7034	4	8	20	20# X-link	1	1	Freshwater	861	2,829	21	67	7.0%	2.0%	861	861		3
	WASATCH	17	7078	7082	4	16	20	20# X-link	2	2	Freshwater	861	3,690	21	88	7.0%	4.1%	1,722	2,583		3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,075	6,765	73	161	25.0%	21.8%	9,225	11,808		9
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,583	9,348	62	223	21.0%	24.4%	10,332	22,140		0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,722	11,070	41	264	14.0%	24.4%	10,332	32,472		0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,230	12,300	29	293	10.0%	23.3%	9,840	42,312		0
	WASATCH	0					20	Flush (4-1/2")				6,739	19,039	160	453				42,312		67
	WASATCH	0						ISDP and 5 min ISDP													87
	WASATCH	0											19,039			100.0%					
																	gal/ft	410	1,410	lbs sand/ft	
		30		# of Perfs/stage		48									Flush depth	6902	CBP depth	6,892		10	LOOK
							22.7	<< Above pump time (min)													
5	WASATCH	3	6764	6766	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	2	6770	6772	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	11	6810	6812	4	8	20	20#			Freshwater	1,976	1,976	47	47	16.0%	0.0%	0	0		6
	WASATCH	4	6830	6832	4	8	20	20# X-link	1	1	Freshwater	865	2,841	21	68	7.0%	2.0%	865	865		3
	WASATCH	7	6858	6862	4	16	20	20# X-link	2	2	Freshwater	865	3,705	21	88	7.0%	4.1%	1,729	2,594		3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,088	6,793	74	162	25.0%	21.8%	9,263	11,856		9
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,594	9,386	62	223	21.0%	24.4%	10,374	22,230		0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,729	11,115	41	265	14.0%	24.4%	10,374	32,604		0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,235	12,350	29	294	10.0%	23.3%	9,880	42,484		0
	WASATCH	0					20	Flush (4-1/2")				6,556	18,906	156	450				42,484		65
	WASATCH	0						ISDP and 5 min ISDP													85
	WASATCH	0											18,906			100.0%					
																	gal/ft	475	1,634	lbs sand/ft	
		26		# of Perfs/stage		48									Flush depth	6714	CBP depth	6,628		86	
							22.5	<< Above pump time (min)													
6	WASATCH	2	6442	6444	4	8	Varied	Pump-in test			Freshwater		0	0	0						
	WASATCH	3	6476	6478	4	8	0	ISIP and 5 min ISIP													0
	WASATCH	14	6534	6538	4	16	20	20#			Freshwater	2,030	2,030	48	48	16.0%	0.0%	0	0		6
	WASATCH	2	6574	6576	4	8	20	20# X-link	1	1	Freshwater	888	2,918	21	69	7.0%	2.0%	888	888		3
	WASATCH	2	6596	6598	4	8	20	20# X-link	2	2	Freshwater	888	3,806	21	91	7.0%	4.1%	1,776	2,664		3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,171	6,977	76	166	25.0%	21.8%	9,514	12,178		10
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,664	9,641	63	230	21.0%	24.4%	10,655	22,833		0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,776	11,417	42	272	14.0%	24.4%	10,655	33,488		0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,269	12,685	30	302	10.0%	23.3%	10,148	43,636		0
	WASATCH	0					20	Flush (4-1/2")				6,273	18,958	149	451				43,636		62
	WASATCH	0						ISDP and 5 min ISDP													83
	WASATCH	0											18,958			100.0%					
																	gal/ft	590	2,030	lbs sand/ft	
		22		# of Perfs/stage		48									Flush depth	6425	CBP depth	6,415		10	LOOK

7	WASATCH	5	6228	6230	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	3	6252	6254	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	3	6274	6276	4	8	20	20#			Freshwater	2,066	2,066	49	49	16.0%	0.0%	0	0				6
	WASATCH	4	6289	6291	4	8	20	20# X-link	1	1	Freshwater	904	2,970	22	71	7.0%	2.0%	904	904				3
	WASATCH	2	6315	6317	4	8	20	20# X-link	2	2	Freshwater	904	3,875	22	92	7.0%	4.1%	1,808	2,712				3
	WASATCH	2	6344	6345	4	4	20	20# X-link	3	3	Freshwater	3,229	7,103	77	169	25.0%	21.8%	9,686	12,398				10
	WASATCH	3	6382	6385	4	12	20	20# X-link	4	4	Freshwater	2,712	9,815	65	234	21.0%	24.4%	10,849	23,247				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,808	11,624	43	277	14.0%	24.4%	10,849	34,096				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,292	12,915	31	308	10.0%	23.3%	10,332	44,428				0
	WASATCH	0					20	Flush (4-1/2")				6,032	18,947	144	451				44,428				59
	WASATCH	0						ISDP and 5 min ISDP																80
	WASATCH	0											18,947			100.0%								
		21		# of Perfs/stage		56									Flush depth	6178		gal/ft	615	CBP depth	2,116	6,014	lbs sand/ft	164	
						22.6																			
8	WASATCH	2	5862	5864	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	2	5870	5871	4	4	0	ISIP and 5 min ISIP																0
	WASATCH	3	5875	5876	4	4	20	20#			Freshwater	2,112	2,112	50	50	16.0%	0.0%	0	0				6
	WASATCH	2	5917	5919	4	8	20	20# X-link	1	1	Freshwater	924	3,036	22	72	7.0%	2.0%	924	924				3
	WASATCH	4	5931	5933	4	8	20	20# X-link	2	2	Freshwater	924	3,960	22	94	7.0%	4.1%	1,848	2,772				3
	WASATCH	3	5940	5942	4	8	20	20# X-link	3	3	Freshwater	3,300	7,260	79	173	25.0%	21.8%	9,900	12,672				10
	WASATCH	2	5982	5984	4	8	20	20# X-link	4	4	Freshwater	2,772	10,032	66	239	21.0%	24.4%	11,088	23,760				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,848	11,880	44	283	14.0%	24.4%	11,088	34,848				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,320	13,200	31	314	10.0%	23.3%	10,560	45,408				0
	WASATCH	0					20	Flush (4-1/2")				5,689	18,889	135	450				45,408				57
	WASATCH	0						ISDP and 5 min ISDP																78
	WASATCH	0											18,889			100.0%								
		16		# of Perfs/stage		48									Flush depth	5826		gal/ft	825	CBP depth	2,838	5,816	lbs sand/ft	10	LOOK
						22.5																			
9	WASATCH	3	5698	5700	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	3	5722	5724	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	1	5784	5786	4	8	20	20#			Freshwater	2,136	2,136	51	51	16.0%	0.0%	0	0				6
	WASATCH	0					20	20# X-link	1	1	Freshwater	935	3,071	22	73	7.0%	2.0%	935	935				3
	WASATCH	0					20	20# X-link	2	2	Freshwater	935	4,005	22	95	7.0%	4.1%	1,869	2,804				3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,338	7,343	79	175	25.0%	21.8%	10,013	12,816				10
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,804	10,146	67	242	21.0%	24.4%	11,214	24,030				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,869	12,015	45	286	14.0%	24.4%	11,214	35,244				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,335	13,350	32	318	10.0%	23.3%	10,680	45,924				0
	WASATCH	0					20	Flush (4-1/2")				5,515	18,865	131	449				45,924				55
	WASATCH	0						ISDP and 5 min ISDP																77
	WASATCH	0											18,865			100.0%								
		6		# of Perfs/stage		24									Flush depth	5648		gal/ft	2,225	CBP depth	2,136	5,606	lbs sand/ft	42	
						22.5																			
10	WASATCH	2	5459	5461	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	1	5526	5528	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	1	5573	5576	4	12	20	20#			Freshwater	2,184	2,184	52	52	16.0%	0.0%	0	0				7
	WASATCH	0					20	20# X-link	1	1	Freshwater	956	3,140	23	75	7.0%	2.0%	956	956				3
	WASATCH	0					20	20# X-link	2	2	Freshwater	956	4,095	23	98	7.0%	4.1%	1,911	2,867				3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,413	7,508	81	179	25.0%	21.8%	10,238	13,104				10
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,867	10,374	68	247	21.0%	24.4%	11,466	24,570				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,911	12,285	46	293	14.0%	24.4%	11,466	36,036				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,365	13,650	33	325	10.0%	23.3%	10,920	46,956				0
	WASATCH	0					20	Flush (4-1/2")				5,281	18,931	126	451				46,956				52
	WASATCH	0						ISDP and 5 min ISDP																75
	WASATCH	0											18,931			100.0%								
		4		# of Perfs/stage		28									Flush depth	5409		gal/ft	3,900	CBP depth	3,744	6,372	lbs sand/ft	37	LOOK
						22.5																			
11	WASATCH	1	5220	5222	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	6	5247	5249	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	5	5270	5273	4	12	20	20#			Freshwater	2,215	2,215	53	53	16.0%	0.0%	0	0				7
	WASATCH	3	5312	5314	4	8	20	20# X-link	1	1	Freshwater	969	3,184	23	76	7.0%	2.0%	969	969				3
	WASATCH	3	5340	5342	4	8	20	20# X-link	2	2	Freshwater	969	4,154	23	99	7.0%	4.1%	1,938	2,907				3
	WASATCH	3		No Perfs			20	20# X-link	3	3	Freshwater	3,461	7,615	82	181	25.0%	21.8%	10,384	13,291				10
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,907	10,522	69	251	21.0%	24.4%	11,630	24,921				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,938	12,461	46	297	14.0%	24.4%	11,630	36,551				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,385	13,845	33	330	10.0%	23.3%	11,076	47,627				0
	WASATCH	0					20	Flush (4-1/2")				5,048	18,893	120	450				47,627				50
	WASATCH	0						ISDP and 5 min ISDP																73
	WASATCH	0											18,893			100.0%								
		20		# of Perfs/stage		44									Flush depth	5170		gal/ft	710	CBP depth	682	5,088	lbs sand/ft	82	
						22.5																			
12	WASATCH	3	5009	5012	4	12	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	2	5048	5050	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	9	5054	5058	4	16	20	20#			Freshwater	2,246	2,246	53	53	16.0%	0.0%	0	0				7
	WASATCH	0					20	20# X-link	1	1	Freshwater	983	3,229	23	77	7.0%	2.0%	983	983				3
	WASATCH	0					20	20# X-link	2	2	Freshwater	983	4,212	23	100	7.0%	4.1%	1,966	2,948				3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,510	7,722	84	184	25.0%	21.8%	10,530	13,478				11
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,948	10,670	70	254	21.0%	24.4%	11,794	25,272				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,966	12,636	47	301	14.0%	24.4%	11,794	37,066				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,404	14,040	33	334	10.0%	23.3%	11,232	48,298				0
	WASATCH	0					20	Flush (4-1/2")				4,842	18,882	115	450				48,298				48
	WASATCH	0						ISDP and 5 min ISDP																71
	WASATCH	0											18,882			100.0%								
		13		# of Perfs/stage		36									*Flush depth*	4959		gal/ft	1,080	CBP depth	1,037	4,934	lbs sand/ft	25	LOOK
						22.5																			
13	WASATCH	8	4870	4872	4	8	Varied	Pump-in test			Freshwater		0	0	0									
	WASATCH	4	4878	4880	4	8	0	ISIP and 5 min ISIP																0
	WASATCH	3	4892	4894	4	8	20	20#			Freshwater	2,274	2,274	54	54	16.0%	0.0%	0	0				7
	WASATCH	8	4900	4904	4	16	20	20# X-link	1	1	Freshwater	995	3,268	24	78	7.0%	2.0%	995	995				3
	WASATCH	3		No Perfs			20	20# X-link	2	2	Freshwater	995	4,263	24	102	7.0%	4.1%	1,989	2,984				3
	WASATCH	0					20	20# X-link	3	3	Freshwater	3,553	7,816	85	186	25.0%	21.8%	10,658	13,642				11
	WASATCH	0					20	20# X-link	4	4	Freshwater	2,984	10,800	71	257	21.0%	24.4%	11,936	25,578				0
	WASATCH	0					20	20# X-link	6	6	Freshwater	1,989	12,789	47	305	14.0%	24.4%	11,936	37,514				0
	WASATCH	0					20	20# X-link	8	8	Freshwater	1,421	14,210	34	338	10.0%	23.3%	11,368	48,882				0
	WASATCH	0					20	Flush (4-1/2")				4,706	18,916	112	450				48,882				16
	WASATCH	0						ISDP and 5 min ISDP																39
	WASATCH	0											18,916			100.0%								
		25		# of Perfs/stage		40									Flush depth	4820		gal/ft	580	CBP depth	557	4,820	lbs sand/ft	0	LOOK
						22.5																			
	Totals	264				532						Total Fluid		245,984	gals	5,857	bbls		Total Sand		599,193	LOOK			
														5,857	bbls										
						49										13.0	tanks					Total Scale Inhib. =		929	

NBU 1021-31A
Perforation and CBP Summary

Stage	Zones	Perforations		SPF	Holes		Fracture Coverage		
		Top, ft	Bottom, ft						
1	MESAVERDE	8116	8126	4	40		7988	to	7991.5
	MESAVERDE		No Perfs				8050	to	8063.5
	MESAVERDE		No Perfs				8106.5	to	8117
	MESAVERDE		No Perfs				8119	to	8121
	MESAVERDE		No Perfs				8133	to	8141
	MESAVERDE		No Perfs				8143	to	8146
	# of Perfs/stage				40		CBP DEPTH	7,468	
2	MESAVERDE	7380	7382	4	8		7380	to	7382.5
	MESAVERDE	7408	7414	4	24		7403	to	7419.5
	MESAVERDE	7436	7438	4	8		7437	to	7438.5
	# of Perfs/stage				32		CBP DEPTH	7,356	
3	MESAVERDE	7282	7284	4	8		7279	to	7283.5
	MESAVERDE	7311	7313	4	8		7311	to	7313
	MESAVERDE	7322	7326	4	16		7319.5	to	7334.5
	# of Perfs/stage				48		CBP DEPTH	7,112	
4	WASATCH	6930	6932	4	8		6930	to	6932
	WASATCH	6976	6978	4	8		6975	to	6978
	WASATCH	7010	7012	4	8		7011	to	7014
	WASATCH	7032	7034	4	8		7030	to	7035.5
	WASATCH	7078	7082	4	16		7065.5	to	7082
	# of Perfs/stage				48		CBP DEPTH	6,892	
5	WASATCH	6764	6766	4	8		6763.5	to	6766.5
	WASATCH	6770	6772	4	8		6770.5	to	6772.5
	WASATCH	6810	6812	4	8		6808	to	6819
	WASATCH	6830	6832	4	8		6830	to	6833.5
	WASATCH	6858	6862	4	16		6856	to	6862.5
	# of Perfs/stage				48		CBP DEPTH	6,628	
6	WASATCH	6442	6444	4	8		6441.5	to	6443.5
	WASATCH	6476	6478	4	8		6475.5	to	6478
	WASATCH	6534	6538	4	16		6524.5	to	6538
	WASATCH	6574	6576	4	8		6575	to	6577
	WASATCH	6596	6598	4	8		6597.5	to	6599
	# of Perfs/stage				56		CBP DEPTH	6,415	
7	WASATCH	6228	6230	4	8		6226.5	to	6231.5
	WASATCH	6252	6254	4	8		6252	to	6255
	WASATCH	6274	6276	4	8		6274.5	to	6277.5
	WASATCH	6289	6291	4	8		6288.5	to	6292
	WASATCH	6315	6317	4	8		6316	to	6317.5
	WASATCH	6344	6345	4	4		6343.5	to	6345.5
	WASATCH	6382	6385	4	12		6381	to	6384
	# of Perfs/stage				48		CBP DEPTH	6,014	
8	WASATCH	5862	5864	4	8		5862.5	to	5864.5
	WASATCH	5870	5871	4	4		5869.5	to	5871
	WASATCH	5875	5876	4	4		5874	to	5876.5
	WASATCH	5917	5919	4	8		5917.5	to	5919
	WASATCH	5931	5933	4	8		5930.5	to	5934.5
	WASATCH	5940	5942	4	8		5940.5	to	5943.5
	WASATCH	5982	5984	4	8		5982.5	to	5984
	# of Perfs/stage				24		CBP DEPTH	5,816	
9	WASATCH	5698	5700	4	8		5699	to	5701.5
	WASATCH	5722	5724	4	8		5723	to	5725.5
	WASATCH	5784	5786	4	8		5784	to	5785
	# of Perfs/stage				28		CBP DEPTH	5,606	
10	WASATCH	5459	5461	4	8		5459.5	to	5461
	WASATCH	5526	5528	4	8		5526	to	5527
	WASATCH	5573	5576	4	12		5574	to	5575
	# of Perfs/stage				44		CBP DEPTH	5,372	
11	WASATCH	5220	5222	4	8		5248	to	5249
	WASATCH	5247	5249	4	8		5213	to	5219
	WASATCH	5270	5273	4	12		5269	to	5273.5
	WASATCH	5312	5314	4	8		5274.5	to	5277
	WASATCH	5340	5342	4	8		5311.5	to	5314.5
	WASATCH		No Perfs				5339.5	to	5342
	# of Perfs/stage				36		CBP DEPTH	5,088	
12	WASATCH	5009	5012	4	12		5010	to	5012.5
	WASATCH	5048	5050	4	8		5047	to	5049
	WASATCH	5054	5058	4	16		5053.5	to	5062
	# of Perfs/stage				40		CBP DEPTH	4,934	
13	Totals	4870	4872	4	8		4867	to	4875
		4878	4880	4	8		4877.5	to	4881
		4892	4894	4	8		4891	to	4894
		4900	4904	4	16		4897	to	4904.5
			No Perfs				4907.5	to	4910
							CBP DEPTH	4,820	
	Totals				532				

Stage 1

(from wellhead to top perf)

		Depth	Footage	I.D.	BBL/ft	BBL
Casing Segment 1	4 1/2" 11.6 #	0	0	4	0.01554	0.00
Casing Segment 2	2 7/8" 6.5 #	7768	7768	2.441	0.00579	44.96
Csg to Top Perf	4 1/2" 11.6 #	8116	348	4	0.01554	5.41
Plug Back TD		8174				**50.37**
Top of Sand Plug	Desired	8066	108			
Top of Sand Plug	Actual	8066	0	Difference		

	Sand		**Fluid Volume**	
50 ft underflush at 8 ppg	261	pounds	1	BBL
8ppg SW plug	747	pounds	2	BBL
0 ppg linear flush	0	pounds	47	BBL
Total for Plug	**1008**	pounds	**50.37**	BBL

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: NBU 1021-31A

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304739111

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 744'FNL, 815'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☑ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

THE OPERATOR HAS PERFORMED AN RECOMPLETION ON THE SUBJECT WELL LOCATION. THE OPERATOR HAS COMPLETED THE WASATCH FORMATION, THE OPERATOR HAS COMMINGLED THE NEWLY WASATCH FORMATION ALONG WITH THE EXISTING MESAVERDE FORMATIONS. THE OPERATOR HAS PLACED THE SUBJECT WELL LOCATION BACK TO PRODUCTION ON 12/16/2008 AT 3:30 PM.

PLEASE REFER TO THE ATTACHED RECOMPLETION CHRONOLOGICAL WELL HISTORY.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE DATE 12/17/2008

(This space for State use only)

RECEIVED
DEC 22 2008
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

Wins No.: 95292	NBU 1021-31A	API No.: 4304739111

EVENT INFORMATION:			AFE NO.: 2007648
	EVENT ACTIVITY: RECOMPLETION	START DATE: 11/10/2008	
	OBJECTIVE: DEVELOPMENT	END DATE: 12/15/2008	
	OBJECTIVE 2: RECOMPLETE	DATE WELL STARTED PROD.:	
	REASON: MV/WAS GEL	Event End Status: COMPLETE	

RIG OPERATIONS:	Begin Mobilization	Rig On Location	Rig Charges	Rig Operation Start	Finish Drilling	Rig Release	Rig Off Location
LEED 693 / 693		11/15/2008				12/15/2008	12/15/2008

Date	Time Start-End	Duration (hr)	Phase	Code	Subcode	P/U	Operation
11/15/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING, DAY 1
	7:30 - 9:30	2.00	COMP	30		P	ROAD RIG FROM BLACK 6-155 TO LOC,
	9:30 - 13:00	3.50	COMP	30	A	P	MIRU LEED 733, BLOWED WELL DN, PUMP 30 BBLS 2% KCL WTR DN TBG, N/D WH, N/U BOPS, R/U FLOOR AND TBG EQUIP.
	13:00 - 16:30	3.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG, LAYED DN 17 JTS, STAND BACK 125 STANDS, 267 JTS, SWI SDFN
11/16/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #2, DAY 2
	7:30 - 11:00	3.50	COMP	34	I	P	650# ON WELL, BLOWED DN TO TK, PUMP 30 BLLS DN CSG, R/U SCHLUMBERGER WIRELINE W/ HAVE TO REHEAD WIRE, RIH W/ GAUGE RING, RIH W/ BAKER8K CBP, SET CBP @ 8156', R/D WIRELINE.
	11:00 - 18:00	7.00	COMP	31		P	CHANGE PIPE RAMS TO 2-7/8" RAM, CHANGE TBG EQUIP TO 2-7/8" TBG, P/U BAKER 10K PACKER, XN-NIPPLE, X-OVER, RIH W/ 2-7/8" PH6 TBG, TRY SET PACKER @ 7800', PACKER WOULD NOT SET, MOVE PACKER TRY TO RESET PACKER, PACKER WOULD NOT SET, SDFN.
11/17/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #3, DAY 3
	7:30 - 10:00	2.50	COMP	31	I	P	TRY TO SET PACKER, TOOH W/ 2-7/8" TBG, POOH 243 JTS, LEFT 6 JTS AND PACKER, TBG CAME UNSCREWED,
	10:00 - 14:30	4.50	COMP	31	I	P	CHANGED TBG EQUIP OVER TO 2-3/8" TBG, P/U CROSS OVER FROM 2-7/8" PH6 TO 2-3/8" EUE, RIH W/ 2-3/8" TBG 7797', SCREW INTO 2-7/8" TBG, WORK TBG MAKE SUTE TBG WAS TIGHT, RIH TO 7860', PULLED UP TO 7800' SET PACKER P/U RELEASE PACKER, TRY TO TIGHTEN TBG AGAIN,
	14:30 - 18:00	3.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG , LAYED DN 6 JTS 2-7/8" TBG AND BAKER PACKER, CHANGE TBG EQUIP BACK TO 2-7/8", SHUT WELL IN SDFN
11/18/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #4, DAY 4,
	7:30 - 10:30	3.00	COMP	31	I	P	P/U BAKER 10K RIGHT HAND SET PACKER, TIH W/ 2-7/8" TBG, SET PACKER @ 7800',
	10:30 - 13:00	2.50	COMP	33	B	P	R/U DELSCO SLICKLINE, RIH SET STANDING VALVE IN XN-NIPPLE, R/U BC QUICK TEST, PRESSURE TEST TBG AND FRAC VALVE TO 8400#, (OK), RIH W/ SLICKLINE RETREVIE STANDING VALVE, R/D SLICKLINE, PRESSURE TEST CBP, CSG, PACKER, TBG & FRAC VALVE TO 6000#, (OK),
	13:00 - 18:00	5.00	COMP	36		P	HOLD SAFETY MEETING W/ SCHLUMBERGER FRAC & PERF CREW, R/U SCHLUMBERGER WIRELINE, RIH W/ PERF GUNS, PERF THE MV @ 8116 TO 8126' 4-SPF, USING 1-9/16" TITAN SDP GUNS, 3.2 gm, 0.20 HOLE, 0*PHS, 40 HOLES, WHP = 60# BRK DN PERF @ 5943# @ 5 B/M, INJ-RT= 5 B/M, INJ-P = 7430#, ISIP = 2400#, F.G.= .73, PUMP 3 BBLS 15% HCL AHEAD OF INJ, CALC 65% PERF OPEN, PUMP 596 BBL GEL WTR & 60142 # OTTAWA 20/40 SAND, ISIP = 6600#, F.G. = 1.24 MP = 8522#, MR = 20.9 B/M, AP = 7181#, AR = 16.3B/M, CUT WHITE SAND 2,000# SHORT, SCREEN OUT ON FLUSH LAST 3 BBLS, FLOWED WELL BACK FOR 30 MIN, CLEAN UP SAND, PUMP 50 BBLS FLUSH CLEAR PERF, MIX 1 BBL CEMENT AND PUMP DN TO @ 7950' (150' BELOW PACKER), SHUT WELL IN, DRAIN UP LINES. SDFN
11/19/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #5, DAY 5,

	7:30 - 9:00	1.50	COMP			P	1500# ON TBG, BLEED DN TO TK SLOW W/ PRESSURE DN TO ZERO W/ WTR STILL FLOWING BACK, SHUT TBG IN PRESSURE UP TO 1200#, OPEN RBG UP FLOWED BK @ 30 BBL WTR THEN SOME GEEN CEMENT, FLOWED TBG BK @ 60 BBLS, SHUT TBG IN,
	9:00 - 10:00	1.00	COMP	31	E	P	R/U SCHLUMBERGER FRAC PUMP, PUMP DN TBG W/ PRESSURE UP TO 7450#, PRESSURE DROP DN TO 3500#, PUMP 30 BBLS PRESSURE DROP TO 1000#, PUMP TOTAL OF 50 BBLS SHUT DN PRESSURE DROP TO 60#,
	10:00 - 11:30	1.50	COMP	34	G	P	R/U SCHLUMBERGER WIRELINE, RIH W/ SINKER BARS TAG FILL @ 8126', POOH R/D WIRELINE
	11:30 - 14:30	3.00	COMP			P	WAIT ON FREASH WATER TRUCK. HOLD JSA MEETING W/ ALL ON LOC.
	14:30 - 16:00	1.50	COMP	31	F	P	MIX UP 4SACKS CEMENT, PUTCEMENT IN PUMP HOSE, PUMP 300# OF 8# SAND, SWITCH OVER PUMP CEMENT W/ FLUSH W/ 41.4 BBLS OF WTR, TOP CEMENT @ 7950', SAND PLUG @ 8090' TO 8126', ACROSS PERF, SHUT TBG IN, CLEAN UP PUMPS, SDFN W/ 2000# ON TBG.
11/20/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING # 6, DAY 6
	7:30 - 15:00	7.50	COMP	31		P	950# ON TBG, BLEED TBG DN SLOW, TBG STARTED FLOWING @ 1/2 B/M, SHUT TBG, PRESSURE BK UP ON TBG TO 500#, W/ BLEED OFF TO 100# IN 25 MIN, SHUT TBG IN, R/U WIRELINE RIH TAG TOP OF CEMENT @ 8072', POSSIBLE CEMENT NOT SET UP, R/D WIRELINE, SDFN.
11/21/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SFETY MEETING #7, DAY 7,
	7:30 - 15:30	8.00	COMP	31		P	400# ON TBG, BLEED TBG OFF, R/D FRAC VALVE, PUT TIW VALVE IN TBG, P/U TRY TO RELEASE PACKER, TRY CIRC, JUST PRESSURE UP, WORK TBG TRY TO FREE UP PACKER, NO GOOD, PUMP 10 BBL BRINE WTR DN TBG, 5 BBL BRINE WTR DN CSG, PULLED TBG UP TP 20 POINTS OVER STRING WEIGHT, SHUT WELL IN SDFN,
11/22/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #8, DAY 8
	7:30 - 17:30	10.00	COMP	34	A	S	200 # ON TBG, BLEED OFF, R/U J-W WIRELINE, RIH W/FREE POINT TOOL, 7614' TBG FREE, 7763' TBG STUCK, 7740' TBG STUCK, 7700' TBG STUCK, 7671' TBG STUCK, 7640 TBG 70% FREE, POOH W/ WIRELINE, WORK TBG AND TRY TO CIRC HOW WAITING FOR TBG PUNCH. RIH SHOT 4 HOLE w/ @ 1/4" HOLE , @ 7790' TO 7792', POOH, PUMP DN TBG HOW WORKING TBG, COULDNOT CIRC WELL, PRESSURE UP TO 3000#, RIH W/ TBG CUTTER , CUT TBG @ 7786', POOH, WORK TBG AND TRY TO CIRC, COULD NOT CIRC OR MOVE TBG, SHUT WELL IN. SDFN.
11/23/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #9, DAY 9
	7:30 - 11:00	3.50	COMP	34	A	P	400# ON TBG, BLOWED DN TO TK, R/U J-W WIRELINE RIH W 1-7/8" CUTTER, CUT TBG @ 7756', POOH, WORK TBG W/ NO MOVEMENT, RIH W / TBG CUTTER, TRY CUT TBG W/ TOOLS NOT SET BLOW WIRELINE UP HOLE,, WIRELINE DIDNOT HAVE ANY MORE CUTTER, R/D J-W WIRELINE, RELEASE J-W WIRELINE,
	11:00 - 12:00	1.00	COMP	31		P	WORK TBG TRY TO FREE UP TBG HOW WAIT FOR CASEDHOLE SOLUTION WIRELINE,
	12:00 - 18:30	6.50	COMP	34	A	P	R/U CASEDHOLE WIRELINE, RIH W/ TBG CUTTER, CUT TBG @ 7694', POOH, WORK TBG W/ NO MOVEMENT, RIH W TBG CUTTER, CUT TBG @ 7662', POOH, WORK TBG W/ TBG PULLING FREE, R/D WIRELINE, HAVE 5- FISH TOPS, #1 7662', #2 7694', #3 7725', #4 7756', #5 7786', PACKER @ 7800', PUMP 20 BBLS 2% KCL WTR DN TBG, PULLED OUT LAY 3 JTS 2-7/8" TBG, SHUT WELL IN SDFN
11/24/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #10, DAY 10
	7:30 - 12:30	5.00	COMP	31		P	200# ON WELL BLOWED DN TO TK, POOH W/ 2-7/8" PH6 TBG LAYING DN ON RACKS,

	12:30 - 18:00	5.50	COMP	31	I	P	CHANGE OUT BOP RAMS TO 2-3/8", AND TBG EQUIP, P/U FISHING TOOLS AND DRILL COLLERS, BHA = 104.58', TIH W/2-3/8" TBG, TO @ 7500', SHUT WELL IN SDFN
11/25/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #11, DAY 11,
	7:30 - 10:30	3.00	COMP	31	B	P	200# ONN WELL, BLOWED DN TO TK, RIH W/2-3/8" TBG, TAG FISH TOP @ 7659', R/U POWER SWIVEL & FOAM UNIT, BROKE CIRC W/ FOAM, LATCH ONTO FISH, PULLED FISH #1 FREE, HUNG SWIVEL BACK,
	10:30 - 16:00	5.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG, WELL STARTED FLOWING, HOOK UP & PUMP 30 BBLS WTR, WELL BLOWED WTR BACK, LET THE WELL BLOW DN @ 2 HOURS, FINISH PULL OUT OF HOLE, LAYED DN FISH #1,
	16:00 - 18:00	2.00	COMP	31	B	P	CHANGE OUT OVERSHOT GRAPLE, WELL BLOWED IN, BLOW WELL DN, RIH W/ FISHING TOOL DRILL COLLERS, AND 2-3/8" TBG, TO @ 5000', SHUT WELL IN SDFN.
11/26/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #12, DAY 12
	7:30 - 10:30	3.00	COMP	31	B	P	1100# ON WELL, BLOWED DN TO TK, TIH LATCH ONTO FISH # 2 @ 7694', PULLED FISH (2-7/8"TBG ") FREE, (?)
	10:30 - 12:30	2.00	COMP	31	I	P	TOOH W/ 2-3/8" TBG, NO FISH, CHANGE OUT GRAPLE IN OVERSHOT,
	12:30 - 15:00	2.50	COMP	31	I	P	TIH W/ FISHING TOOLS, DRILL COLLERS, JARS, BUMPER SUB W/ 2-3/8" TBG, RIH TAG FISH TOP @ 7694', PULLED FISH FREE, (?)
	15:00 - 17:00	2.00	COMP	31	I	P	TOOH W/ 2-3/8' TBG, NO FISH,
	17:00 - 18:00	1.00	COMP	31	I	P	CHANGE OUT DRESSING TOOL W/ WASH OVER SHOE ON BOTTOM, TIH W/ 2-3/8" TBG, TO @ 4000', SHUT WELL IN, SDFWE,
12/1/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #13, DAY 13
	7:30 - 10:00	2.50	COMP	31	I	P	1100# ON WELL, BLOWED DN TO TK, TIH W/ 2-3/8" TBG TO @ 7694',
	10:00 - 12:30	2.50	COMP	31	B	P	R/U POWER SWIVEL, BROKE CIRC W/ FOAM UNIT, DRESS OFF TOP OF FISH, CIRC WELL CLEAN, R/D POWER SWIVEL,
	12:30 - 14:30	2.00	COMP	31	I	P	TOOH W/ 2-3/8" TBG AND BHA, CHANGE OUT BOTTOM TOOLS,
	14:30 - 16:30	2.00	COMP	31	I	P	RIH W/ FISHING TOOLS DRILLCOLLERS AND 2-3/8" TBG, TAG TOP OF FISH @ 7694',
	16:30 - 19:00	2.50	COMP	31	B	P	LATCH ON FISH @ 7694', JAR ON FISH @ 1/2 HOUR, TBG STARTED TO FLOW, HOOKUP KELLYHOSE TO TBG, LET TBG FLOW HOW JARRING AND WORK W/ TBG, JARED FISH #2 FREE, PUMP 20 BBL BRINE WTR DN TBG, KILLING TBG, PULLED OUT 22 JTS 2-3/8" TBG W/ DRAGING ON FIRST 30 ', SHUT WELL IN SDFN,
12/2/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #14, DAY 14
	7:30 - 9:30	2.00	COMP	31	I	P	700# ON WELL, BLOWED DN TO TK, TOOH W/ 2-3/8" TBG & FISHING TOOLS, LAYED 1 JT 2-7/8" TBG,
	9:30 - 12:30	3.00	COMP	31	I	P	P/U 5' WASH SHOE, DRESS OFF TOOL RIH W/ DRILL COLLERS AND 2-3/8" TBG, TAG SAND 7711', TOP OF FISH @ 7721',
	12:30 - 15:00	2.50	COMP	31	B	P	R/U POWER SWIVEL, BROKE CIRC W/ FOAM UNIT, WASH @ 10' FILL, TAG FISH 7721' WASH OVER AND DRESS OFF TOP OF FISH, CIRC WELL CLEAN, PUMP 60 BBL 2% KCL AND 50 BBL BRAINE WTR FOR WELL CONTROL, R/D POWER SWIVEL
	15:00 - 17:30	2.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG, LAYED DN WASH SHOE AND SKIRTED MILL,
	17:30 - 18:30	1.00	COMP	31	I	P	P/U OVER SHOT, TIH W/ BHA AND 2-3/8" TBG TO @ 3000', SHUT WELL IN SDFN.
12/3/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #15, DAY 15
	7:30 - 9:00	1.50	COMP	31	I	P	100# ON WELL, BLOWED DN TO TK, TIH W/ 2-3/8" TBG, TAG TOP OF FISH @ 7721'
	9:00 - 9:30	0.50	COMP	31	B	P	LATCH ONTO FISH #3 @ 7721', JARED FISH FREE,
	9:30 - 12:00	2.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG, LAYED DN FISH #3, BROKE OUT AND LAY DN JARS AND BUMPER SUBS,
	12:00 - 15:30	3.50	COMP	31	I	P	P/U OVERSHOT, NEW JARS AND BUMPER SUB, RIH W/ DRILL COLLER AND 2-3/8" TBG, TAG FISH TOP @ 7753',

	15:30 - 16:30	1.00	COMP	31	B	P	LATCH ONTO FISH #4 @ 7753', JAR FISH FREE, PUMP 50 BRINE WTRKILL PLUG DN TBG,
	16:30 - 19:00	2.50	COMP	31	I	P	TOOH W/ 2-3/8" TBG, LAYED DN FISH #4, CHANGE OUT BHA TO WASH PIPE TO WASH OVER CUT TBG TO TOP OF PACKER, SHUT WELL INSDFN,
12/4/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING #16, DAY 16
	7:30 - 9:30	2.00	COMP	31	I	P	700# ON WELL, BLOWED DN TO TK, TIH W/ WASH SHOE, JARS, BUMPER SUB, DRILL COLLERS AND 2-3/8" TBG, TAG FILL @7776',
	9:30 - 11:30	2.00	COMP	31	B	P	R/U POWER SWIVEL, BROKE CIRC W/ FOAM UNIT, WASH OUT 10' FILL, WASH OVER FISH TOP DN TO TOP OF PACKER, CIRC WELL CLEAN, PUMP 50 BBL BRINE WTR KILL PLUG, R/D POWER SWIVEL,
	11:30 - 13:30	2.00	COMP	31	I	P	TOOH W/ 2-3/8" TBG, LAYED DN WASH SHOE,
	13:30 - 16:00	2.50	COMP	31	I	P	P/U OVER SHOT, RIH W/ BHA AND 2-3/8" TBG, PUMP 30 BBLS KCL WTR FOR WELL CONTROL, RIH TAG FISH TOP @7786',
	16:00 - 16:30	0.50	COMP	31	B	P	LATCH ONTO FISH #5 @ 7786', PICK UP SET JARS OFF ONCE, PACKER DRAG UP HOLE 10', SET BACKDN ON PACKER, P/U TURN PACKER TO LEFT RELEASE PACKER,
	16:30 - 17:00	0.50	COMP	31	I	P	PULLED OUT 12 STAND 2-3/8" TBG, PACKER PULLING FREE, SHUT WELL IN SDFN.
12/5/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING # 17, DAY 17
	7:30 - 12:30	5.00	COMP	31	I	P	600# ON WELL, BLOWED DN TO TK, PUMP 50 BBL BRINE WTR KILL PLUG DN TBG, TOOH W/ 2-3/8" TBG, LAY DN DRILL COLLERS, PULLED PACKER UP W/ HANGING UP IN WELL HEAD, WORK TRY TO GET PACKER FREE, PULLED BOPS OFF AND GATE VALVE, SLIPS ON PACKER HANGING UP ON PORT OF SIDE GATE VALVE, WORK SLIPS FREE PULLED TOOLS ON OUT OF WELL, NIPPLED UP FRAC VALVE, BROKE OUT FISHING TOOLS AND PACKER,
	12:30 - 16:30	4.00	COMP	34	I	P	R/U CASEDHOLE SOLUTION WIRELINE, RIH W/ 4-1/2" GAUGE RING JUNK BASKET TO 7500', RIH W/ BAKER 8K CBP, SET CBP @ 7468', R/D WIRE LINE, R/U BC QUICK TEST, PRESSURE TEST CBP CSG AND FRAC VALVE TO 6200#, (HELD). R/D TESTER, DRAIN UP LINES AND EPUIPT, SHUT WELL IN SDFWE
12/8/2008	SUPERVISOR: CLAUD SIMS						MD:

	6:30 - 18:30	12.00	COMP	36	D	P	R/U SCHLUMBERGER WIRELINE AND FRAC, HOLD SAFETY MEETING W/ ALL CREWS,
							(STG #2) RIH W PERF GUNS, PERF THE MESA VERDE @ 7436-38', 7408 - 14', 7380 - 82', 4-SPF, USING 3-3/8" EXP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 60#,
							BRK DN PERF @ 3470# @ 5 B/M, INJ-RT = 20.3 B/M, INJ-P =4166#, ISIP = 1920 #,
							F.G.= 0.69, PUMP 3 BBLS 15 % HCL AHEAD OF INJ., CALC 72% PERF OPEN, PMPED 1093 BBLS 25 # GEL, & 97700 # 20/40 SAND, STARTED FLUCH WHEN 8# SAND HIT PERF, SCREEN OFF, FLOWED WELL BACK FOR 30 MIN HOOK BACK UP PUMP 115 BBLS WTR CLEAR WELL BORE,
							MP = 8357#, MR = 20.3 B/M,AP = 3740#,
							AR = 20.3 B/M,
							
							(STG #3) RIH W BAKER 8K CBP & PERF GUNS, SET DN @ 7330', WIRELINE STUCK IN HOLE, PUMP DN CSG W/ WIRELINE NO MOVEMENT, BLEEDING WELL DN, MOVE WIRE LINE @ 10, KEPT PRESSURE UP AND BLEEDING OFF, MOVE WIRE LINE UP TO @ 7230', COULD NOT MOVE WIRELINE ANYMORE, TRY TO PULL OUT OF WIRELINE ROPE SCOKET, SHEAR OFF CBP, PULLED OUT OF HOLE, RIH W/ SINKER BARS, TAG UP @ 7236', R/D SCHLUMBERGER WIRELINE AND FRAC, SHUT WELL IN, SDFN, WAIT ON COIL TBG UNIT.

12/9/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 15:00	8.00	COMP	30		S	WAIT ON COIL TBG, STANBY
12/10/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING # 20, DAY 20
	7:30 - 14:00	6.50	COMP	32	A	P	R/U COIL TBG SERVICE, PRESSURE TEST EQUIP TO 5000#, (OK)

	14:00 - 23:00	9.00	COMP	32	A	P	RIH W/ 1-1/2" COIL W/ MUD MOTOR AND 3-7/8" MILL, TAG @ 7154', WASH OUT FILL TO 7221' FELL FREE, TAG CBP @ 7330', DRILL OUT CBP RIH TAG CBP 7468', CIRC WELL TWO TIMES AROUND, PULLED OUT W/ COIL, BLOWED COIL TBG OUT DRY W/ N2, R/D COIL TBG UNIT. SHUT WELL IN SDFN.
12/11/2008	SUPERVISOR: CLAUD SIMS						MD:
	6:30 - 7:00	0.50	COMP	48		P	JSA-SAFETY MEETING #21, DAY 21
	7:00 - 9:00	2.00	COMP	34	G	P	R/U SCHLUMBERGER WIRELINE, RIH W/ GAUGE RING TO @ 7360'

	9:00 - 18:00	9.00	COMP	36	B	P	(STG #3) RIH W/ BAKER 8K CBP & PERF GUNS SET CBP @ 7350', PERF THE MESA VERDE @
							7322 - 26', 7311 - 13', 7282 - 84', 4-SPF, USING 3-3/8" EXP GUNS, 23gm, 0.36 HOLE, 90* PHS, 32 HOLES, WHP = 150 #
							R/U SCHLUMBERGER FRAC, HELD SAFETY MEETING W/ ALL CREWS, PRESSURE TEST LINE TO 7200#,
							BRK DN PERF 5359# @ 6 B/M, INJ-RT = 20.1 B/M, INJ-P = 4430 #, ISIP = 3050#, F.G.= 0.85 PUMPED 3 BBLS 15% HCL AHEAD OF INJ., CALC 72% PERF OPEN, PUMP 932 BBLS GEL WTR & 98423 # SAND, ISIP = 4050 #, F.G.= 0.98 NPI = 1000, MP = 4664 #, MR = 20.6 B/M, AP = 4115 #, AR 19 B/M,
							
							(STG #4) RIH W/ BAKER 8K CBP & PERF GUNS SET CBP @ 7112', PERF THE MV & WASATCH @ 7078 - 82', 7032 - 34', 7010 - 12', 6976 - 78', 6930 - 32', 4-SPF, USING 3-3/8" EXP GUNS, 23gm, 0.36 HOLE, 90* PHS, 48 HOLES,
							WHP = 844 #
							BRK DN PERF @ 2791# @ 7 B/M,
							INJ-RT = 20.2 B/M, INJ-P = 4125 #, ISIP = 2450 #, F.G.= 0.78 , CALC 65% PERF OPEN, PUMP 706 BBLS GEL WTR & 84998 # SAND, ISIP = 4000 # F.G.= 1.00, NPI = 1550 ,
							MP = 4426 #, MR =20.6 B/M, AP = 3901 #, AR = 19.5 B/M,
							
							(STG #5) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 6890', PERF THE WASATCH @ 6858 - 62', 6830 - 32',
							6810 - 12', 6770 - 72', 6764 - 66', 4- SPF, USING 3-3/8" EXP GUNS, 23gm, 0.36 HOLE, 90* PHS, 48 HOLES, WHP = 2360 #,
							BRK DN PERF 4445# @ 5 B/M, INJ-RT = 21 B/M, INJ-P = 3850#, ISIP = 2850#, F.G.= 0.84, CALC 79% PERF OPEN, PUMPED 691 BBLS GEL WTR & 84640# SAND, ISIP = 3500#, F.G.= 0.94, NPI = 650, MP = 4015#,
							MR = 21 B/M, AP = 3597#, AR = 20.3 B/M,
							
							(STG #6) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 6628', PERF THE WASATCH @6596 - 98', 6574 - 76',
							6534 - 38', 6476 - 78', 6442 - 44', 4- SPF, USING EXP GUNS, 23gm, 0.36 HOLE, 90* PHS, 48 HOLES, WHP = 550 #,
							BRK DN PERF @ 2647 # @ 5 B/M,
							INJ-RT = 20.9 B/M, INJ-P = 3400 #,
							ISIP = 1640#, F.G.= 0.68, CALC 68% PERF OPEN, PUMPED 415 BBLS OF GEL WTR &
							43472 # SAND, ISIP = 3000 #, F.G.= 0.89,
							NPI = 1360, MP = 3471 #, MR = 21 B/M,
							AP = 3083 #, AR = 20 B/M,
							
							SHUT WELL IN, DRAIN UP AND PICKLE ALL PUMP LINES AND PUMP, SDFN

12/12/2008	SUPERVISOR: CLAUD SIMS						MD:
	6:30 - 7:00	0.50	COMP	48		P	JSA-SAFETY MEETING #22, DAY 22

	7:00 - 13:00	6.00	COMP	36	B	P	R/U SCHLUMBERGER WIRELINE, (STG #7) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 6415', PERF THE WASATCH @ 6382 = 85', 6344 - 45', 6315 - 17', 6289 - 91', 6274 - 76', 6252 - 54', 6228 - 30', 4- SPF, USING 3-3/8" EXP GUNS, 23gm, 0.36 HOLE, 90* PHS, 56 HOLES, WHP = 248 #, BRK DN PERF @ 2715 # @ 3 B/M, INJ-RT = 20.9 B/M, INJ-P = 3240 #, ISIP = 2050 #, F.G.= 0.76, CALC 83% PERF OPEN, PUMPED 410 BBLS GEL WTR & 43940 # 20/40 OTTAWA SAND, ISIP = 2900#, F.G.= 0.89, NPI = 850, MP = 3312#, MR = 21 B/M, AP = 3003#, AR = 20.2 B/M, (STG #8) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 6020', PERF THE WASATCH @ 59832 - 84', 5940 - 42', 5931 - 33', 5917 - 19', 5875 - 76', 5870 - 71', 5862 - 64', 4-SPF, USING 3-3/8" EXP GUNS, 23 gm, 0.36 HOLE, 48 HOLES, WHP = 800 # BRK DN PERF @ 2344 # @ 5 B/M, INJ-RT = 20.8 B/M, INJ-P = 2800 #, ISIP = 1800 #, F.G.= 0.73 , CALC 73% PERF OPEN, PUMPED 411 BBLS GEL WTR & 45064 # 20/40 OTTAWA SAND, ISIP = 2400 #, F.G.= 0.84 NPI = 600 , MP = 2856 #, MR = 21 B/M, AP = 2555 #, AR = 20.3 B/M, (STG #9) RIH W/ BAKER 8K CBP & PERF GUNS, SET CBP @ 5816', PERF THE WASATCH @ 5784 - 86', 5722 - 24', 5698 - 5700', 4-SPF, USING 3-3/8" EXP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 24 HOLES, WHP = 1125 #, BRK DN PERF @ 5244 # @ 6 B/M, INJ-RT = 20.8 B/M, INJ-P = 3066 #, ISIP = 2000 #, F.G.= 0.78 , CALC 86% PERF OPEN, PUMPED 444 BBLS GEL WTR & 56420 # 20/40 SAND, ISIP = 2360 #, F.G.= 0.84 , NPI = 360 , MP =3178 #, MR = 21 B/M, AP = 2783 #, AR = 20.6 B/M, (KILL PLUG) RIH W/ BAKER 8K CBP, SET CBP @ 5600', POOH, R/D SCHLUMBERGER WIRELINE AND FRAC. TOTAL FLUID = 5898 BBLS GEL WTR TOTAL SAND = 614799 # 20/40 SAND TOTAL NALCO SCALE INHIB = 623 GALS. TOTAL NALCO BIOCIDE = 108 GALS TOTAL J-583 CLAYTREAT = 507 GALS TOTAL J-580 GEL = 3858 LBS TOTAL J-218 BREAKER = 75 LBS TOTAL J-532 X-LINKER = 471 GALS TOTAL J-475 BREAKER = 386 LBS
	13:00 - 16:00	3.00	COMP	31	I	P	BLOWED WELL DN, N/D FRAC VALVE, N/U BOPS, R/U TBG EQUIP. P/U 3-7/8" MILL AND SLIDING SLEEVE, RIH W/ 2-3/8" TBG TO @ 5000', DRAIN UP LINES SDFN.
12/13/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING # 23, DAY 23
	7:30 - 18:00	10.50	COMP	44	C	P	RIH TAG CBP @ 5600', R/U POWER SWIVEL, BROKE CIRC, (DRLG CBP #1) 5600', DRLG OUT BAKER 8K CBP IN 20 MIN, 400# DIFF, LET WELL EQUALIZE, RIH TAG 5816',C/O 0' SAND, FCP = 200#, (DRLG CBP #2) 5816', DRLG OUT BAKER 8K CBP IN 60 MIN, O# DIFF, RIH TAG FILL 5988', C/O 26' SAND, FCP = 200# (DRLG CBP #3) 6014', DRLG OUT BAKER 8K CBP IN60 MIN, 0# DIFF, RIH TAG 6410', C/O 5' SAND, FCP = 50#, (DRLG CBP #4) 6415', DRILL OUT BAKER 8K CBP IN 45 MIN, 0# DIFF, C/O TO 6440' BLOWED WELL CLEAN W/ FOAM UNIT, P/O LAYED DN 30 JT 2-3/8" TBG, SWIFN, SD
12/14/2008	SUPERVISOR: CLAUD SIMS						MD:
	7:00 - 7:30	0.50	COMP	48		P	JSA-SAFETY MEETING # 24, DAY 24

	7:30 - 7:30	0.00	COMP	44	C	P	500# ON WELL, BLOWED DN TO TK, TIH W/ 2-3/8" TBG, TAG @ 6620', FOAM UNIT AIR FROZE UP, UNTHAUTHED FOAM UNIT, BROKE CIRC W/ FOAM UNIT, CLEAN OUT 8' SAND, (DRLG CBP #5) 6628', DRILL OUT BAKER 8K CBP IN60 MIN, 350# DIFF, RIH TAG @ 6830', C/O 62' SAND, FCP = 300#, (DRLG CBP #6) 6892', DRILL OUT BAKER 8K CBP IN 60 MIN, 0# DIFF, RIH TAG @ 7068', C/O 44' SAND, FCP = 250#, (DRLG CBP #7) 7112', DRILL OUT BAKER 8K CBP IN 35 MIN, 0 # DIFF, RIH TAG @ 7315', C/O 37' SAND, FCP = 150#, (DRLG CBP #8) 7352', DRILL OUT BAKER 8K CBP IN 60 MIN, 0# DIFF, RIH TAG SAND @ 7438', C/O 30' SAND, FCP = 150#, (DRLG CBP #9) 7468', DRILL OUT BAKER 8K CBP IN 60 MIN, 50# DIFF, RIH TAG SAND @ 8005', C/O 67' SAND, FCP = 200# (DRLG CEMENT PLUG #10) 8072', DRILL OUT CEMENT PLUG IN 5 MIN, 0# DIFF, RIH TAG SAND @ 8130', C/O 16' SAND,CIRC WELL CLEAN, PBTD 8146', CBP AT 8156', R/D POWER SWIVEL, POOH LAY DN 26 JTS ON PIPE TRAILER, LAND TBG ON HANGER W/ 233 JTS 2-3/8" J-55 TBG, EOT @ 7088', R/D FLOOR & TBG EQUIP., N/D BOPS, N/U WELL HEAD, R/U DELSCO SLICKLINE, RIH CHANGE OUT SLIDING SLEEVE PORTS, R/D SLICKLINE, AVG 60 MIN PER PLUG, W/ 261' SAND, KB = 18.00' HANGER = .83' 225 JTS 2-3/8" J-55 TBG = 7064.70' FAST EDDIE SLIDING SLEEVE = 4.40' EOT = 7087.93"

12/15/2008 SUPERVISOR: CLAUD SIMS MD:

	7:00 - 15:00	8.00	COMP	30		P	R/D SERVICE UNIT AND EQUIPT, MOVED OFF LOC, RELEASE RIG, HOOK UP FOAM UNIT BLOWED WELL AROUND, WELL FLOWING TO TK ON 48/64 CHOKE 700# ON TBG 1200# ON CSG, TURN WELL OVER TO FBC,

12/15/2008 SUPERVISOR: - MD:

	7:00 -			33	A		7 AM FLBK REPORT: CP 100#, TP 100#, 32/64" CK, 24 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 1022 BBLS LEFT TO RECOVER: 6578

12/16/2008 SUPERVISOR: - MD:

	7:00 -			33	A		7 AM FLBK REPORT: CP 1300#, TP 450#, 24/64" CK, 20 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 1582 BBLS LEFT TO RECOVER: 6018

additional test

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ (highlight changes) FORM 8

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-22794
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT or CA AGREEMENT NAME: UNIT #891008900A
8. WELL NAME and NUMBER: NBU 1021-31A
9. API NUMBER: 4304739111
10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 31 10S 21E
12. COUNTY: UINTAH
13. STATE: UTAH

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ DRY ☐ OTHER

b. TYPE OF WORK: NEW WELL ☐ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☑ OTHER RECOMPLETE

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

3. ADDRESS OF OPERATOR: 1368 S 1200 E CITY VERNAL STATE UT ZIP 84078 PHONE NUMBER: (435) 781-7024

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 744'FNL, 815'FEL
AT TOP PRODUCING INTERVAL REPORTED BELOW:
AT TOTAL DEPTH:

14. DATE SPUDDED: 10/10/2007
15. DATE T.D. REACHED: 11/12/2007
16. DATE COMPLETED: 12/16/2008 ABANDONED ☐ READY TO PRODUCE ☑
17. ELEVATIONS (DF, RKB, RT, GL): 5293'GL

18. TOTAL DEPTH: MD 9,100 TVD
19. PLUG BACK T.D.: MD 8,146 TVD
20. IF MULTIPLE COMPLETIONS, HOW MANY? *
21. DEPTH BRIDGE PLUG SET: MD TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)
N/A

23.
WAS WELL CORED? NO ☑ YES ☐ (Submit analysis)
WAS DST RUN? NO ☑ YES ☐ (Submit report)
DIRECTIONAL SURVEY? NO ☑ YES ☐ (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
12 1/4"	9 5/8 J-55	36#		1,955		485			
7 7/8"	4 1/2 I-80	11.6#		9,100		1615			

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	7,088							

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)
(A) WASATCH	5,698	7,082		
(B) MESAVERDE	7,282	8,126		
(C)				
(D)				

27. PERFORATION RECORD

INTERVAL (Top/Bot - MD)		SIZE	NO. HOLES	PERFORATION STATUS
5,698	7,082	0.36	262	Open ☑ Squeezed ☐
7,282	8,126	0.36	112	Open ☑ Squeezed ☐
				Open ☐ Squeezed ☐
				Open ☐ Squeezed ☐

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
5698'-7082'	PMP 3077 BBLS YF120 ST & 358,534# 20/40 SD
7282'-8126'	PMP 2621 BBLS YF120ST & 256,265# 20/40 SD

29. ENCLOSED ATTACHMENTS:
☐ ELECTRICAL/MECHANICAL LOGS ☐ GEOLOGIC REPORT ☐ DST REPORT ☐ DIRECTIONAL SURVEY
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☐ CORE ANALYSIS ☐ OTHER:

30. WELL STATUS: PROD

(5/2000) (CONTINUED ON BACK)

RECEIVED
JAN 20 2009
DIV. OF OIL, GAS & MINING

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
12/16/2008	12/21/2008	10		0	706	0	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	368	676					0	706	0	PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
12/16/2008	12/21/2008	10		0	706	0	FLOWING

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:
20/64	368	676					0	706	0	PROD

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:

CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
WASATCH	4,185	7,014			
MESAVERDE	7,024	8,976			

35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE DATE 1/12/2009

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

(5/2000)